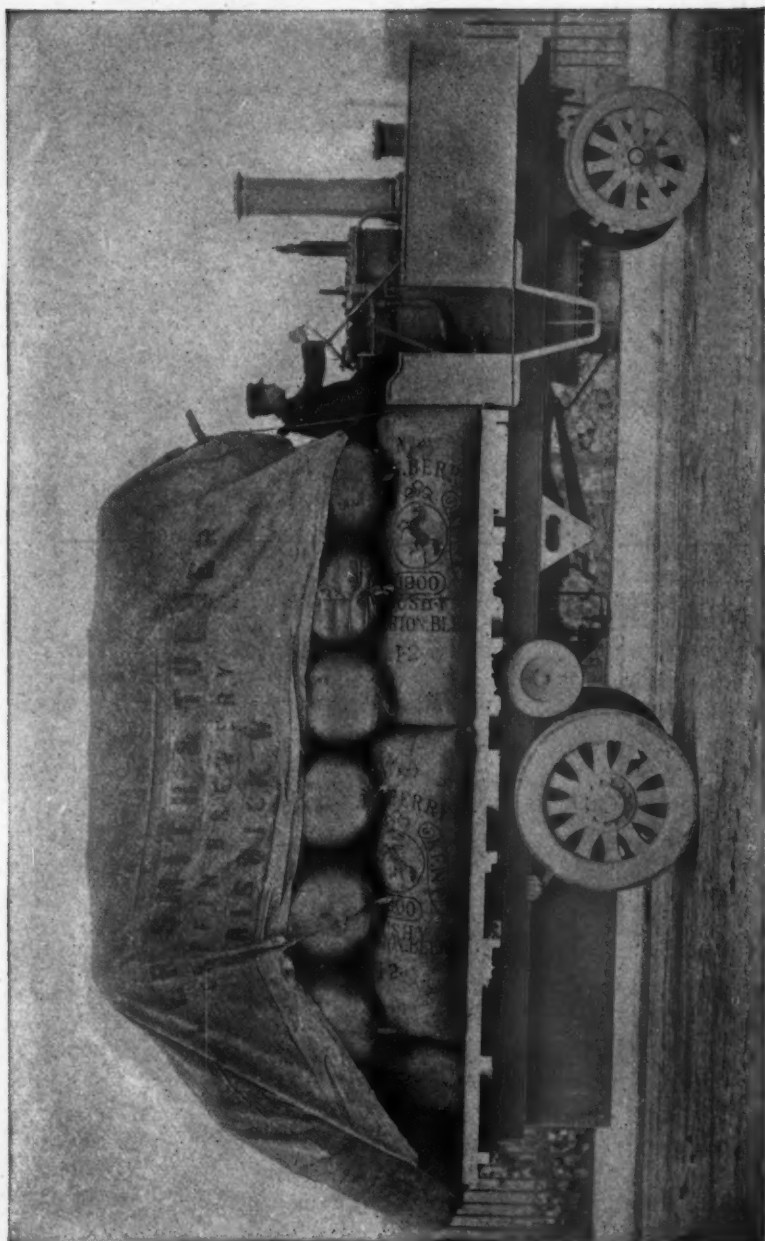


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THE MOTOR AGE		
THE AUTOMOBILE AUTHORITY OF AMERICA		

			
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THE THORNYCROFT STEAM LORRY.

One of the Participants in the Liverpool Trials Now in Progress.



FOR AND ABOUT AUTOMOBILE CLUB MEN



FRENCHMEN WILL COME

New York, June 8.—A cable to the New York Herald to-day confirmed this week's exclusive story in Motor Age that Fournier and Charron would come to this country to take part in the Buffalo-Erie race for the A. C. A. cup and sweepstakes. It says:

Both M. Charron and M. Henri Fournier, interviewed this morning, say they have decided to cross the Atlantic for the Buffalo-Erie race.

Fournier will have the Mors machine with which he recently won the Paris-Bordeaux contest.

Charron is going to have a new one built as soon as he knows the character of the roads.

Charron, "le Roi des Chauffeurs," says he is going over on racing and business.

Another cable from Paris in to-day's Herald quotes Comte de Dion as commenting as follows on Kenneth Skinner's Boston to New York ride:

"An average of 16 miles an hour over a distance of 255 miles I consider fair, for the roads at places are rough and our voiturettes are not racers. They are built to go everywhere, down the Boulevard des Italiens or across a desert. They rarely break down. Business is our motto."



PARIS TO BORDEAUX

French exchanges to hand this week contain little about the late Paris to Bordeaux race other than the information already furnished to readers of this paper.

There were 63 starters. The entire route was well lined with spectators and a remarkable feature of the event was the absence of the hostility shown by the agricultural classes in previous years.

The positions and times of the vehicles of various classes are here given:

Vehicles weighing 650 kilos. and over:

1. Fournier, 20 horsepower Mors 6:11:44 3-5
2. Farman, 24 horsepower Panhard, 4 speeds 6:41:01 4-5
3. Voigt, 24 horsepower Panhard, 3 speeds 7:16:11 2-5
4. Pinson, 24 horsepower Panhard, 3 speeds 7:46:51 4-5

5. A. Axt, 20 horsepower Panhard, 1900 cup model..... 7:47:17
 6. G. Hourgleere, 28 horsepower Mors 8:37:39 1-5
 7. Girardot, 24 horsepower Panhard, 4 speeds 8:51:59 1-5
 8. H. Farman, Panhard..... 8:53
 9. de Crawez, Panhard..... 8:55:34 2-5
 10. Berteaux, Panhard 11:10:39
 11. L. Lefevre, Bolide 11:53:50
- Fournier's average, 85 kilometers 85 meters.

Light vehicles, between 400 and 650 kilos.

1. Giraud, Panhard 8:09:48 4-5
2. Baras, Darracq 8:42:52 2-5
3. Edmond, Darracq 10:25:04
4. Beconnais, Beconnais 10:41:25 3-5
5. Thery, Decauville 11:11:42
6. Sanz, Boyer 11:12:26
7. Rudeaux, Darracq 11:49:58
8. Uhlmann, Decauville 12:18:20
9. Filtz, Turgan et Foy..... 13:57:59
10. Chabrieres, Decauville 14:05:46

Giraud's average, 64 kilometers.

Voiturettes, between 250 and 400 kilos.

1. L. Renault, Renault freres.. 9:32:27
2. M. Renault, Renault..... 9:40:52 1-5
3. Oury, Renault 9:46:50 2-5
4. Grus, Renault 9:52:41
5. Lot, Liberia 15:04

Renault's average per hour, 58 kilometers 244 meters.

Motocycles.

1. Teste, 8 horsepower DeDion. 8:01:00 3-5
2. Osmond, 8 horsepower De Dion 8:03
3. Baedea, 8 horsepower De Dion 8:54:06 3-5
4. Collignon, 8 horsepower De Dion 9:11:35 1-5
5. Bardin, 8 horsepower De Dion 10:30:40 2-5
6. Gaste, Liberator 10:32:03 1-5
7. Holley, DeDion 10:36
8. Cormier, DeDion 11:34:52
9. G. Rivierre, Werner..... 12:30:55
10. Bucquet, Werner 12:47:06 2-5



RACE FROM PARIS TO BERLIN

Two weeks hence—Thursday, June 27, the great race from Paris to Berlin will start. It will be international in fact as well as name and intense rivalry exists between the rival makers of France, Ger-

FOR AND ABOUT CLUB MEN.

many and England. There will be no American representative. Concerning the preparations for the race a cablegram from Paris says:

An agent who has been sent to examine the state of the roads over which the race is to be run reports that the roads of Germany are "narrow, dusty and uneven, and are incumbered with peasants who will not get out of the middle of the road for anybody or anything." Thus the contest promises to be not only difficult but very dangerous. The German government has been requested to warn the country inhabitants to "look out for their lives."

A petition has also been addressed to the kaiser asking that the duty on industrial alcohol be removed during seventy-two hours, in order that the automobiles supplied with alcohol motors may not be subjected to disastrous delays on the German frontier. The result of this curious petition, which may have a vital influence on the issue of the race, is awaited with much interest.

THE ALDERMEN WILL RIDE

New York, June 7.—Five members, constituting a quorum of the law committee of the board of aldermen, gave a hearing this afternoon on the proposed city ordinance regulating the speed of automobiles outside of the parks. Chairman Russell and Aldermen Otten, Matthews and Marks participated in the discussion.

Lawyers Church and Chamberlin, of the A. C. A. law committee, at the last moment found it impossible to attend and the burden of representing the club fell unexpectedly upon Secretary Butler, who, considering his lack of preparation, acquitted himself creditably and replied to close questioning as to stopping, starting, turning and control in general. He said that the club wanted a fair ordinance. It stood against excessive speed on the highways. He called the aldermen's attention to the club's rules on the subject and to the fact that it had appointed a pacemaker for its runs to keep the speed within legal limits. He pointed out the superiority of control of the chauffeur over his vehicle, which made a greater speed less dangerous than in the case of a horse-drawn carriage.

J. L. Brower, of the West Side Taxpayers' Association, complained of excessive speed by automobiles and had cycle policemen to testify how, when pursued, they would suddenly draw up, endangering their pursuers.

Mr. Butler made the point that this showed from the mouth of unfriendly wit-

nesses how complete was the control of a motor vehicle by its driver.

W. W. Niles, counsel for the National Association of Automobile Manufacturers, discussed the proposed ordinance from a technical legal standpoint.

H. S. Chapin and F. G. Webb, of the Long Island Automobile Club, called attention to the fact that chauffeurs paid from \$1,000 to \$7,000 for their machines and would not be likely to risk them and their own lives unnecessarily. They also argued that much of the public prejudice against automobiles lay in the general ignorance of them and the ease of their control.

Chairman Russell said that his committee had no desire to present an unfair ordinance and would gladly accept the chance the chauffeurs offered them to witness a demonstration of the ease of control of an automobile.

FOREIGN CHAUFFEURS COMING

New York, June 8.—C. J. Field announced to-day that he had received a letter from S. F. Edge, the noted English chauffeur, stating that he was coming over to participate in the Buffalo-Erie race and would bring an 80 horsepower Napier racer. This exceeds by 20 horsepower the Mors racing vehicle Fournier says he will bring with him. An A. C. A. member, by the way, has ordered a 25 horsepower Napier for the race.

CHICAGO ALDERMEN ALSO

The aldermen of Chicago will enjoy an automobile outing, probably not later than the second Saturday hence. Owing to the complaints of excessive speed on the city's streets the council is considering the enactment of legislation which will place the status of automobiles beyond question and so thoroughly define their rights that everyone may know them and be guided accordingly.

But aldermen are not always good judges of the speed of automobiles, no matter how expert they may be in dealing with horses, and so Motor Age concluded that, lest they proceed to legislate on a matter on which they are not properly informed, it would be a good idea to afford them an opportunity to gauge the speed of automobiles from actual experience and to learn something of the ease with which machines are operated and controlled.

Last week the matter was taken up with Mayor Harrison with the result that he has appointed a committee to look into the matter, and has made Alderman Scully, one of the most enthusiastic automobilists in town, the chairman of the committee.

FOR AND ABOUT CLUB MEN.

The matter will now be referred to the automobile club. That body will hold a meeting on Thursday evening of this week and Mr. Scully will attend. The matter will be discussed thoroughly and in all probability a committee will be appointed to take charge of the arrangements.

It has been suggested that the club hold a run to one of the parks or some secluded spot where the necessary exhibitions of speed may be given and where the aldermen will have an opportunity to witness any demonstration they may ask for. Mr. Scully believes that not less than 50 aldermen will accept the invitation. All local owners will be asked to participate and to find seats for the guests.

CINCINNATI CLUB RUN

Cincinnati, June 9.—The first run of the automobile club was held yesterday, and twelve autos lined up in front of the club house for the start at 2 o'clock yesterday afternoon. The objective point was the country residence of President R. A. Holden, Jr., at East Kennedy Heights, where a luncheon was served, after which the return trip to the city was made. Those who made the run in the order in which the autos traveled to the destination are as follows: Captain Howard S. Rodgers and W. W. Brown, President R. A. Holden and R. H. Cox, D. and Mrs. Leroy S. Colter, Robert and Stephen H. Burton, Mr. and Mrs. L. C. Meadows, Dr. and Mrs. George M. Allen, George B. Hawley and Carl Lunkenheimer, Rufus King and Griff Miller, Edward Muhlhäuser and Mrs. J. E. Lapp, Dr. and Mrs. Jos. Elchberg, Mr. and Mrs. Frank Miller, Howard S. Miller and J. Evans.

A. C. OF N. E. RACE MEET

The desire of the Automobile Club of New England to promote friendly feeling and good fellowship between all owners of automobiles is shown in the following circular just issued:

"All non-members of the club who participate in our races on June 15th, are cordially invited to our club dinner, which will be held after the races at our club house, Clyde street, Brookline (opposite the race track), and are furthermore cordially invited to take part in our club run to the Eastern Yacht Club, Marblehead Neck, which will be held Sunday morning, June 16th. Lunch will be obtained at the Yacht Club, and the return made in the afternoon. Further particulars will be sent to those making entries."

The club has issued the following programme of races, to be held Saturday of this week:

Open to all, electric pleasure vehicles, two passengers.

Club members only, steam vehicles, two passengers.

Open to all, electric racers.

Open to all, steam, two passengers, stock vehicles.

Open to all, steam, four passengers, stock vehicles.

Club members only, gasoline pleasure vehicles.

Open to all, steam racers.

Open to all, motor tricycles.

Open to all, gasoline vehicles and quadricycles, less than 1,000 lbs. in weight.

Open to all, gasoline vehicles, weighing between 1,000 and 2,000 lbs.

Open to all, gasoline vehicles, weighing over 2,000 lbs.

Match race between three vehicles making best time in any of the above races.

Larz Anderson, a member of the club, has presented a handsome silver cup as the prize for the final race.

PINES IN THE PINERIES

Doctor and Mrs. Pine returned on Monday from a trip of about 320 miles in the northern part of Indiana. They were nearly a week away, but spent most of the time with friends in South Bend.

They left Chicago by way of Stony Island avenue, traveling east of Pullman and through Hammond. There the roads, except one short stretch, were found very fair and they continued so the greater part of the journey to South Bend. On the way home the tourists came through Valparaiso and found the roads so poor that they urge others not to make the same mistake.

Soon after starting on the return journey the doctor discovered that some miscreant had inserted a knife blade in one of the front and one of the rear tires. With the materials at his command he made repairs as best he could, but in the end came into Chicago with tires as flat as the proverbial pancake.

The doctor's Milwaukee vehicle stood the trip admirably. He also speaks most highly of the lubricating device made by Mr. Markle and referred to elsewhere in this issue. He applied it to his machine over a month ago and has been highly pleased with its operation ever since.

THEY HELD THE HORSES

New York, June 9.—Yesterday's run of the A. C. A. was to Tuxedo, 37 miles away. Nine vehicles participated, as follows: Jefferson Seligman and D. H. Morris, in Columbia gasoline vehicles; R. H. White, in a White Sewing Machine Co.

FOR AND ABOUT CLUB MEN.

electric; Kenneth Skinner and Malcolm W. Ford, G. Isham Scott and C. J. Field, and S. H. Valentine, on DeDions; G. B. Goldsmith and W. H. Hall, with G. B. Berckman, on Wintons; Louis Stern, in a Panhard.

Under the new rules G. Isham Scott and C. J. Field acted as pacemakers. Pace was taken strictly according to rules on the way to Tuxedo, the route being from the club house to One Hundred and Twenty-fifth street, thence by ferry to Fort Lee and Leonia, Hackensack, Arcola, Hohokus, Suffern, Ramapo and Sloatsburg to the destination. Barring a stretch of mud near Suffern the roads were in fine shape and the 37 miles were covered in an hour and fifty minutes.

At three or four points the chauffeurs had occasion to stop and quiet frightened horses. The run home was a go-as-you-please affair, Mr. Field reaching Fort Lee in 1 hour 17 minutes, with Messrs. White and Skinner following 10 minutes later. Others of the party returned via Nyack. Great care was exercised on the return also in stopping always to reassure horses showing signs of fear.

THE NEW JERSEY CLUB

The recently organized Automobile Club of New Jersey has elected the following officers and directors: A. G. Evans, president; Dr. L. Bauman, vice-president; M. F. Eveland, secretary, and T. F. Merseles, E. V. Kiersted, V. R. Schenck and G. E. Blakeslee, directors.

The president, assisted by these four gentlemen, will manage the affairs of the club. They will appoint all the committees and transact all business that comes up before the club.

All automobilists in the county are eligible to active membership, and from the present outlook the club will start with a very large number of members.

SUPPORTED BY ROYALTY

New York, June 9.—The King of the Belgians, following the example set by the Kaiser and the President of France, will give as a special prize for the Paris-Berlin automobile race a cup valued at \$1,000. There are now 115 entries, with a promise of more of an international element than in the Paris-Bordeaux race.

ENGLISH CLUB'S ACTIVITY

One of the great influences which have benefited automobilism across the water is the English automobile club, which has now a membership of 831. The club house is at 4 Whitehall court, S. W., and the

annual subscription is four guineas for town and three guineas for country members. During the coming season the club will hold periodic trials of various kinds, at which official certificates of competency or otherwise will be granted. It has several tours to carry through, including one in Ireland. At the Glasgow exhibition in September it will conduct a week's long-distance trials, which are to take the place of last year's 1000-mile trial, and there will be the usual anniversary run in November.

VANDERBILT'S FLIERS

Newport, R. I., June 8.—H. Rogers Winthrop, of New York, arrived here this afternoon from Southampton, L. I., having made the trip by automobile.

Mr. William K. Vanderbilt, Jr., who will leave Paris on Tuesday for Newport, has sent his new automobile in advance, and it is expected here in a few days. It was built in Germany, is of 40 horsepower, and is said to have made 72 miles an hour on its trial run. Mr. Vanderbilt will also have his famous White Ghost and two steam vehicles here this season.

OVER THE BRUENIG PASS

Paris, June 8.—Mr. and Mrs. W. K. Vanderbilt, Jr., have performed the most wonderful automobile feat of the season. They have gone over the Bruenig Pass to Lucerne.

This is the first time the famous pass has been crossed by an automobile, and the club here is so enthusiastic over the feat that its members have quite forgiven Mr. Vanderbilt for buying a German machine.

On the occasion of the invitation run of the Massachusetts Automobile Club, which occurs on June 17, all visitors will be able to obtain free storage at Station I, Park Square, through the courtesy of the Harvard Automobile Corporation, which is now establishing the Harvard system of interchange stations throughout New England.

A new club has been formed at Herkimer, N. Y., with the following officers: President, C. S. Millington; vice-president, Dr. H. Morton Roberts; recording secretary, Dr. J. V. Hempstreet; corresponding secretary, W. I. Taber; treasurer, Howard Mark.

One of the Chicago golf clubs held a team match last Saturday for which a waggish member offered an automobile as a prize. The automobile turned out to be a goat.

NEWS OF THE MOTOR INDUSTRY

CENTURY INCREASES CAPITAL

Syracuse, June 10.—The stockholders of the Century Motor Vehicle Co. voted, at a meeting on Friday, to increase the capital stock from \$30,000 to \$100,000. Practically all of the stockholders were present and all were pleased at the showing made the first year. It is said that there has been a profit. There is some talk that the company is going to leave Syracuse and locate in a nearby town where the expenses will not be so large. If it is decided to remain here a new plant will have to be built as the Hookway building, where the company is now located is not adequate. The stockholders will meet again in a few days to decide the question of a new plant.

NEW YORK BAGGAGE EXPRESS

New York, June 8.—New York is to have a trolley and electric baggage wagon express service. The Metropolitan Street Railway company has obtained control of the New York Electric Vehicle and Transportation Co., and the latter in turn has secured control of the Metropolitan Express Co. Baggage express cars will be put on the entire underground electric trolley system of Manhattan and the Bronx and distribution will be made by electric express vans. The transportation company is said to have paid \$500,000 in bonds on the express company's property with ten years' coupons cut off.

PACKAGE DELIVERY IN BOSTON

Boston, June 10.—The latest project in commercial use of automobiles here is the establishment of a general package delivery system for the shopping district and big dry goods stores. The company claims to have secured sufficient encouragement from retail merchants to warrant it in starting business, and the first vehicles will be put into service, it is said, at once. The operating company will own the vehicles and operate them with its own men. They will be run by electricity, though it is asserted that neither the vehicles nor the persons in-

terested in the company have been associated with the late lamented New England Electric Vehicle Transportation Co. The new business will come into competition with the existing parcel delivery for which horses are used.

The Newport station operated last season by the New England Electric Vehicle Transportation Co. has been taken over since this company closed out its business by the New York Electric Vehicle Co., by which it will be operated this summer.

OLDS VEHICLE IN CHICAGO

It may be asserted, without the slightest fear of successful contradiction, that the Olds runabout which arrived at the Temple store in Chicago last Thursday attracted more comment and more visitors, in a short time, than any other vehicle that ever came into the city of Chicago. The store was the objective point, apparently, of every automobilist in the city, for it was well filled all day with men who know a good vehicle when they see one.

In charge of one of Mr. Temple's brothers, the vehicle was running up and down the store the greater part of the day. The one thing which, above all others, impressed the visitors, was the absence of noise and vibration. It has been said of many vehicles that there is a complete absence of vibration. Of course no such statement is true of any gasoline vehicle on the market. The most perfect thing it is possible for human skill to produce would not be absolutely noiseless or without vibration when mounted on such framework as it is possible to employ in the construction of a light automobile. But the Olds machine comes as near to realization of the claim as it is possible for any vehicle to do in the present condition of the industry.

At a standstill the vibration is noticeable, of course, but in motion it is so nearly eliminated as to be unobserved except by one who is paying special attention to that feature. Little or none of the vibration is communicated to the operator by means of the steering lever. The lever is connected by a spring device

which makes it as steady as a rock, a point which will be appreciated by many whose fingers have been numbed by the vibration common to all vehicles.

Elegance of appearance, so far as design is concerned, is certainly one of the strong points of the Olds vehicle, though unfortunately the finish of the first sample received showed signs of haste in preparing it for shipment. All of the operating parts are so splendidly placed as to cause wonderment at the evident ease of control. Every feature is trim and neat in appearance. The operating mechanism is almost completely enclosed in metal cases, finished in a dull aluminum, thus avoiding the formidable display of parts which so often bewilders and sometimes frightens prospective purchasers.

Further reference to the vehicle will be made later. Meanwhile it is not surprising that the local agents state that the number of machines they will dispose of this season will be limited only by the ability of the factory to make deliveries. Other machines are expected to arrive in Chicago in a few days.

THE GERMAN EXHIBITION

Washington, June 8.—Detailed information has been received here regarding the German Cycle Fair and Universal Motor Car Exhibition to be held in Leipzig during the latter part of October of this year, under the management of the board of directors of the German Bicycle Dealers' Union. The exhibition will be held in the halls of the Crystal Palace, where about 65,000 square feet will be available for this purpose, and will be the fourth annual exhibition given by this organization. The classification of cycle exhibits will be as follows:

Group 1, finished cycles of every description without motor power.

Group 2, cycle parts and accessories.

Group 3, allied branches.

Group 4, machines for cycle construction and repair.

Group 5, literature and advertising.

In these various departments electro-motive force will be placed at the disposal of the exhibitors for putting machines in motion.

The motor car exhibition will be as follows:

Group 1, (a) motor cars and motor vehicles of all kinds for the conveyance of persons; (b) motor vehicles for the conveyance of loads, goods, wares, etc.; (c) same.

Group 2, motors and accumulators for motor car purposes.

Group 3, parts for motor vehicles, equipment for motor cars and drivers, tools, etc.

Group 4, allied branches.

Group 5, drawings and models of inventions appertaining to the motor car industry, literature and advertising.

Group 6, motor vehicles in motion for purposes of demonstration.

Productions of all countries will be admitted for exhibition to all groups. Space will be rented at a charge of 30 marks per square meter. Applications should be filed with Henry Newald, Equitable Palast, Berlin. The committee in charge of the affair reserves the right to increase the charge for space.

IN THE GOVERNMENT SERVICE

The United States Signal Corps has been experimenting for considerably over a year with three motor wagons for the purpose of determining their exact value in field service. One of these wagons has been in actual service for several months at Manila and the other two have been used experimentally at Fort Myer, Va.

It was the original intention of Gen. Greely, who is in charge of the Signal Corps, to procure for these experiments wagons having the three different kinds of power in order to test them all. This plan, however, was afterward changed and three electric wagons were bought, because of the belief that their batteries would make them of great service in operating field telegraph or telephone lines. They have decided to extend their experiments to include wagons operated by other kinds of power, and have recently ordered two gasoline and one steam vehicle. These wagons are to be of special design, in accordance with certain specifications of the war department, and have been ordered of the Automobile Company of America, the Electric Vehicle Company (Riker gasoline wagon) and the Mobile company, respectively.

FOR AUSTRALIAN TRADE

J. F. McDermott & Co., subscribers to this paper at Sydney, N. S. W., write that the automobile business has not made great progress there. "We have a few of the better known makes of American steam and gasoline wagons, as well as a few electrics," they say, "but the style of vehicle suitable for our requirements for country use has not yet been placed on the market."

ELECTRIC VEHICLE BRANCH

The Electric Vehicle Co.'s branch on Wabash avenue, Chicago, is now open for business. Manager Budlong returned from New York last week and reports that one of the new Riker gasoline ma-

NEWS OF THE INDUSTRY.

chines may be expected in Chicago about ten days hence. The latest addition to the concern is G. H. Atkins, formerly treasurer of the Wood Motor Vehicle Co., which position he resigned two weeks ago. Mr. Atkins will serve the company as general western representative. The branch will cover all the territory between Chicago and the Pacific coast.

THESE MAY MANUFACTURE

The Hidley Automobile Co., of Troy, N. Y., has been incorporated at Albany. It is intended to manufacture and sell automobiles, engines, electric machinery, etc. The capital stock is \$50,000, and the directors, all of Troy, are Eugene Bryan, John B. Holmes and Northrup R. Holmes. Each takes forty shares of the capital stock.

The Eclipse Automobile Co., of South Easton, Mass., has been reorganized, and Fred W. Marshall, of Boston, has been made general manager and treasurer of the new company. The Eclipse company has been manufacturing and experimenting with automobiles for the past three years and is now prepared to put a chainless carriage on the market. After July 15th it will turn out one finished carriage per day.

Swift & Detrick, of Rock Falls, Ill., have built a vehicle which has been tested and pronounced satisfactory. The firm will now make arrangements to manufacture a large number. The plant is to be enlarged.

The Snowdeal Manufacturing Co., of Baltimore, is enlarging its factory and has increased its capital for the purpose of manufacturing automobiles. Its address is 2552 Madison avenue.

Jamestown, N. Y., has a street car men's strike. The cars are running as usual, but the labor unions are talking of organizing a company to operate automobiles in opposition.

It is reported in Pittsburg that the Westinghouse Electric and Mfg. Co. is building 40 omnibuses under the Hub motor system, to be first introduced in Chicago.

It is reported that Clinton E. Woods, who recently closed up his office in Chicago, is now in Erie, Pa., and that he expects to start a company there with a capital of \$15,000.

Harry Wilson, of Grand Island, Ill., is building a vehicle which he expects to have ready for trial at the end of this month.

A charter has been granted to the

Cloughley Automobile Co., of Cherryville, Kan., with a capital of \$25,000.

The Penn Auto Co., capital \$50,000, has been incorporated at Philadelphia.

An international exhibition will occur at Ostende, Belgium, in August and September and automobiles and cycles will be made a prominent feature. There will be separate spaces for complete machines and parts and accessories. Space in choice locations will cost about \$1 per square foot and in less desirable places about 60 cents. The secretary, Ach. DeCock, may be addressed at Rue des Soers Blanches, 18. Circulars containing further details may be obtained at the office of this paper.

A French engineer, 25 years in the engine manufacturing business and of late years solely connected with gasoline engine designing as expert, is open for engagement with some automobile concern desirous of securing the services of an authority on gasoline engine matters. Salary not less than \$2,000 per year. Information will be cheerfully furnished by Motor Age.

A correspondent makes the sensible suggestion that a glove, with strongly reinforced thumb and first finger, would meet with ready sale. He bases his suggestion on the fact that he has been unable to find a glove which will hold together and keep his fingers out of the oil and dirt.

Oscar Lear, a well known cycle and automobile dealer, of Columbus, O., organizer of the automobile club of that city, was a sufferer from fire last Tuesday. His store and stock were damaged to the extent of \$7,000, fortunately covered by insurance.

An order of court has been made directing the directors of the Electric Vehicle Co. to show cause why they should not be restrained from enforcing the \$10 assessment recently made upon the stock of the company.

The Electric Vehicle Co.'s Hartford factory has adjusted its differences with the striking machinists. Only one big concern in that city now holds out and the differences are likely to be adjusted in a day or two.

Clinton E. Woods has filed a petition in bankruptcy. He schedules liabilities of \$31,000 and the principal creditor is A. V. Woods, whose claim is \$12,350.

Carl Fisher, the well known Indianapolis dealer, is said to contemplate a trans-continental trip, starting from New York.

ENGLISH VEHICLES FOR LIVERPOOL TRIALS

THE American manufacturers who are prepared to produce motor vehicles for delivery purposes and for heavy work generally could be counted on the fingers. Those who are making a specialty of that line of work and are prepared to produce with reasonable promptness could be counted on the fingers of one hand and then there would be one or two fingers to spare.

This paper has previously called attention to the desirability of devoting more attention to this all-important branch of the industry and has been ridiculed, in one or two unimportant quarters, for its pains, but the fact remains that the few makers who are giving attention to it will, in the near future, or so soon as they are able to convince business houses of the reliability and stability of their machines, reap a harvest.

In this line of business the makers of Europe, and of England particularly, are a long way ahead of us. They became convinced, quite early in the history of the industry, that on good roads such as they enjoy, the use of a good motor truck would soon become popular and have devoted great attention to the matter accordingly. There have been a number of important tests, as for example those at Liverpool, which furnished a great amount of interesting and instructive data. The Liverpool tests are to be repeated—are, indeed, in progress this week—and the Autocar, reviewing the machines booked to participate, presents information from which much of the following is gleaned. The heavy truck, by the way, is known in England as a lorry.

Of the heavy wagons of British construction the Thornycroft is probably best known and appeals most particularly to the American public. An idea of the business-like appearance of this wagon can be obtained from the frontispiece.

The dimensions of this vehicle, which is constructed to carry 7 tons, are: Length, 22 ft. 6 in.; width, 6 ft. 6 in.; height, 9 ft.; wheel base, 12 ft. 6 in. by 5 ft. 7 in. The leading wheels have tires 6 inches wide and the driving wheel tires are 8 inches wide. The diameter of the leading wheels is 2 ft. 9 in. and the driving wheels 3 ft. 6 in.

The wheels are of the company's special construction with metal naves, oak spokes, ash felloes and weldless steel tires. The ordinary divided axle method of steering is adopted, this being effected by the turning of the hand wheel, operating through a worm gear. The steering gear is thus self-locking in all positions. The forward axle is mounted on a pivot at its center, giving the vehicle a three point support and relieving the channel steel under frame from twisting strains on uneven roads.

The carrying platform is of the usual Liverpool lorry type, surrounded by a low rim. Provision is also made for mounting steel stanchions with connecting chains when required. This platform is of extremely substantial construction, the dimensions of the level platform being: Length, 15 ft. 1½ in.; width, 6 ft. 5¼ in., or 97½ square feet. The height of the platform, above the road surface, is 4 ft. 3 in. when the vehicle is not loaded.

The boiler is of the Thornycroft patent,



Milne's Gasoline Freight Wagon.

ENGLISH VEHICLES FOR LIVER POOL TRIALS

central fired type, having straight water tubes, circularly arranged around the fire. The total heating surface is 132 square feet. The grate area is 4.25 feet. The working pressure is about 225 pounds. The boiler is placed in the center of the forward part of the vehicle, and all mountings are so arranged as to be easily within reach of and in full view of the driver.

Coke or coal is used as fuel and the fire is served through a firing hole in the center of top or steam ring. Regulation is obtained by a hinged door in the ash pan and by the firing hole cover. Two safety valves are fitted, one rising, if the normal pressure is exceeded, while the second is set at about 10 pounds above normal pressure and lifts in the event of the first, through any cause, failing to operate.

When the wagon is running the boiler is fed by a pump driven directly by the engine, and when stationary the engine may be disconnected from the transmission gear and run free, thus feeding the boiler, or the feed water may be supplied by an injector mounted on the boiler itself. The boiler has ample steaming power and requires serving of fuel at intervals of about three-quarters of an hour only.

The engine is horizontal, compound, reversing, the cylinders being 4 and 7 inches in diameter by 5-inch stroke. It is completely enclosed in a dust-proof and oil-tight casing, but all parts are readily accessible for adjustment. The engine indicates 30 horsepower at 500 revolutions per minute.

The exhaust passes through a feed water heater and is then discharged into the smoke box. A spark arrester is fitted in the smoke box through which all the flue gases are drawn by the draft created by the exhaust.

The transmission gear is of the Thornycroft patent chainless type with a special gear for hill climbing. The rear axle is borne in axle boxes of the locomotive type, attached to the center of the rear spring and the road wheels are finally driven by the company's patent spring drive, which has been described in detail in a previous issue of Motor Age.

A powerful screw-down brake is fitted

whereby wooden brake blocks are applied to each rear tire. A foot operated band brake is also provided. The bunkers have a capacity of 38 cubic feet, which is estimated to carry sufficient fuel to drive a fully loaded vehicle 50 miles. The water tank has a capacity of 240 gallons, sufficient for 18 to 20 miles. A steam water lifter is fitted on the feed tank and a length of hose provided whereby the water supply may be replenished from any source available on the route.



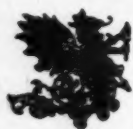
G. F. Milnes & Co. are the manufacturers of one of the few vehicles for freighting purposes fitted with internal combustion engines. The motor used is a two-cylinder, internal combustion engine, built on the Daimler principle, with Daimler float-feed governor and water cooler of the marine condenser type. The normal speed is 750 revolutions per minute, but it may be accelerated up to 1,000, developing 10 brake horsepower. Lubrication is insured by means of gravity feed oil cups.

The Sims-Bosch magneto ignition is fitted. The water circulation is maintained by a gear-driven rotary pump. The gasoline is fed under pressure generated by a portion of the exhaust. The transmission of power is effected through a single, pedal-controlled friction cone, on the Daimler principle. The speed changing gear is provided to give four speeds of 1½, 2½, 4 and 6 miles per hour. In this construction the first and second and the third and fourth speeds are controlled by one lever each, by which means, as the couples of speed are independent of each other, when changing from first to second speed, neither a third or fourth speed gear wheel is affected. This system of changing speeds also automatically disengages the friction cones when either speed lever is actuated.

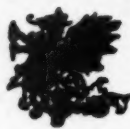
The reverse speed is obtained by dropping into gear a toothed wheel which gives a speed of 4 miles per hour. The lever actuating the reverse gear also disengages the forward speed. A couple of circumferential brakes worked by worm gears from the driver's seat are fitted, as well as a double acting brake clutch operating on the first speed shaft.

CONTINUED NEXT WEEK





INFORMATION FOR BUYERS AND BUILDERS



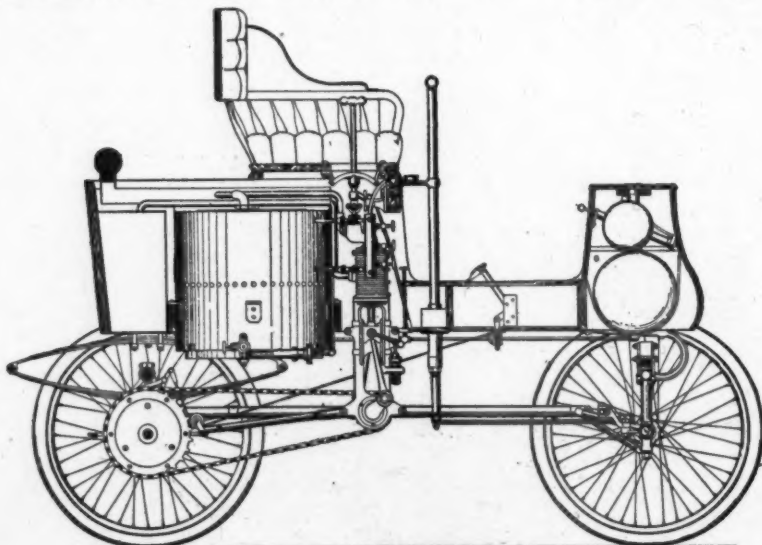
The Geneva Automobile & Mfg. Co., of Geneva, O., has been far from idle since its organization and has had wagons running for the last month, tested and improved little matters of detail and is now delivering with reasonable promptness. The accompanying illustrations present some of the original features of the Geneva steam wagon.

In the body the conventional dash belonging to the horse-drawn vehicle is substituted by a front end so constructed that there is ample room in it for the air and gasoline tanks and tools, thus removing the gasoline tank from proximity to the motor. By putting a back rail and cushion on the front box, it furnishes extra seating capacity.

The boiler is of the water tube type and holds 6 gallons of water when filled for working. The boiler shell is 17 inches in diameter and 17 inches in height, with a crown sheet riveted in, 9 inches from the top, leaving a suitable water chamber. There are sixteen flues $1\frac{1}{4}$ inches in diameter passing from the crown sheet to the head through the water chamber. Underneath the crown sheet are six coiled

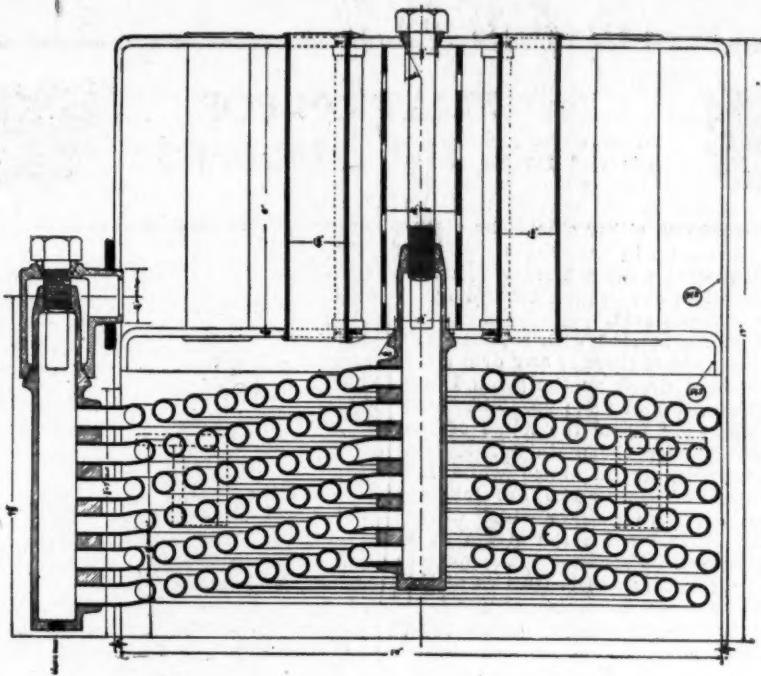
tubes made of $\frac{1}{4}$ -inch, 16-gauge cold drawn seamless steel tubing, with 17 feet of tubing in each coil. These are pinned and brazed to a header or manifold at the center and to a second header on the outside of shell, there being a slot in the shell for the tubes to pass through to the outside header. The intake of water is at the bottom of the outside header. Water is circulated through the tubes rapidly and discharged into the water chamber above the crown sheet through an opening in the center header. These headers are each held in place by a bolt and can be easily removed if desired and the entire coil set taken out.

It is asserted that in this style of boiler the expansion and contraction is cared for in such a way that, as has been found by numerous actual experiments, the water can all be evaporated from the boiler and the coiled tubes heated to a cherry red without injury to the boiler. Thus if anything happens to the pump, through carelessness or oversight, and the water is allowed to evaporate, the wagon will come to a standstill, but steam will be generated and started

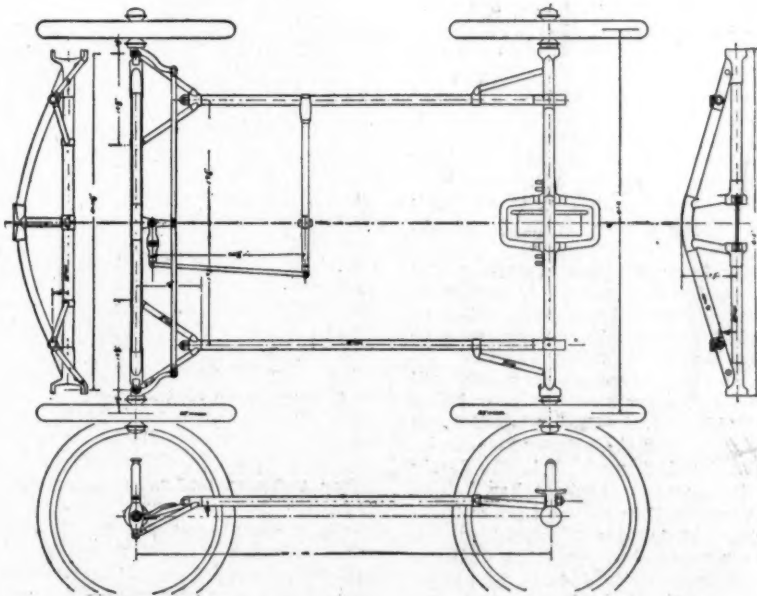


SECTIONAL ELEVATION OF GENEVA CARRIAGE.

INFORMATION FOR BUYERS.



SECTIONAL VIEW OF GENEVA BOILER.



PLAN AND ELEVATION OF GENEVA RUNNING GEAR.

INFORMATION FOR BUYERS.

quickly as soon as water is again put into the boiler. An auxiliary hand pump is provided which can be worked from the seat without inconvenience or without stopping the wagon.

The engine is of the marine type, double cylinder, $2\frac{1}{2}$ -inch bore by 4-inch stroke and is said to develop 6 horsepower. The throttle and reverse levers are combined in one, which is worked from the center of the seat so that the driver can ride on either side. The steering post comes up in the center just forward of the seat with a lever which can be reversed and the wagon steered from either side of the seat.

The burner is started with a pilot light so arranged that if there is any drip from the gasoline, it drops on the ground and will not burn back or flash up. The flame of the pilot light heats the flame of the vaporizing coil for the main burner and is kept burning at all times while the wagon is being used. The fire is controlled by a Locke regulator which works automatically and holds the steam at a steady pressure.

The main journals and eccentrics of the engine are all ball bearing. Ample provision has been made for oiling. The steam exhaust is muffled, is practically noiseless and operates with but little show of steam.

In the flexible running gear the method of attaching to the front truss the side reaches is particularly noticeable, as evident in the illustration. The compensating gear on the rear axle is held in a stiff forging, which keeps the gears in alignment at all times.

The burner is cast with a large percentage of aluminum in the alloy, making it a long-lived burner. The burner and boiler being economical in consumption of fuel, a comparatively small amount of heat being required to generate and keep up the necessary amount of steam, it is claimed that the 9-gallon gasoline tank has ample capacity for from 80 to 100 miles.

The water tank is made of copper and is placed at the rear of the wagon with leads coming forward on both sides of the boiler. It carries 31 gallons, said to be sufficient to run 50 miles.

One hundred of these wagons are well under way and deliveries are now being made. President J. A. Carter is extremely enthusiastic over the showing made by the completed vehicles and believes firmly that the Geneva is a top-notch.

The company will in future turn out one rig per day. It is also prepared to sell any part, or parts, from running gears to complete vehicle, to the trade. The company employs about 50 hands and will start on the erection of additions to the present plant about July 5. The new

building will be 45x190 feet adjoining the present factory. Parts for the erection of 100 rigs are almost complete.

AT THE STEAMOBILE PLANT

Surrounded by picturesque hills, none of which are too steep for its product to climb, the factory of the Steamobile of America, at Keene, N. H., is a very busy place these days. The building is a large, three-story structure, a block in length and is equipped with all the latest devices for up-to-date work, one of the most complete plants, in fact, in New England.

An Age representative, who recently visited Keene, was shown over the plant by Vice-President Rogers. The first



The Steamobile.

floor which is a forest of shafting and belting is the machine shop where all the heavy work is turned out. Here, also, is the testing department where every piece of material entering into the construction of the Steamobile is examined and a record made of its inspection. The next floor contains the plating, polishing and assembling departments and the top floor is devoted to the body work and stock rooms. In a short time the company will begin the erection of an additional building in the rear of the present structure which will bring the factory alongside the railroad tracks, greatly facilitating the shipment of goods. The new building will house a complete testing laboratory, in charge of an expert.

The company expects to make deliveries in a short time and is rushing work on a number of wagons to meet the orders on hand. The Steamobile has a number of improvements which are not found in other vehicles and which are the inventions of the company's people. One of these is a water regulator. This consists of a cylinder connected at the top and bottom to the boiler. It contains a floating metal ball and a double set of fingers operating on outside valves. When the water gets to a height which threatens

INFORMATION FOR BUYERS.

to choke the cylinders this floating ball presses up one of the fingers and that operates a by-pass valve outside which opens a passage back into the tank. There being no pressure there the water is pumped back into the reservoir until the boiler level sinks when the finger closes the valve, thus keeping a proper level. Should the water get too low, acting on the same principle another finger closes a valve in the gasoline pipe and the fire is shut off, opening again when the water level comes up. A burned boiler is thus rendered impossible.

Another good feature of the Steamobile is the inspirator, by the use of which the tank can be filled without the operator leaving his seat. This is accomplished by dropping a hose to a roadside water trough or stream and sucking the water into the tank. Two strainers prevent dirt or foreign matter being picked up. A needle on the outside of the wagon shows the number of gallons in the tank.

When a Steamobile is shipped to a customer every valve has a tag attached, giving its name and use. As the operator gets accustomed to the use of each one the tag may be cut off.

The company has issued an illustrated booklet showing how a steam wagon is operated. It is written in a conversational strain and will prove of interest to those contemplating buying an automobile.

A NEW KNOX BODY

The accompanying illustration shows the latest form of Knox vehicle. It will be observed that the company has got-



The Latest Knox.

ten out a new body which adds materially to the appearance of the machine and gives it a more imposing appearance

mentions, in a letter accompanying the letter, that it has been finding good business in Chicago since the show, which information corroborates the statements of the Spalding people already reported in this paper.

IS YOUR CIRCULATION GOOD?

In a circular headed as above, the Automobile Specialty Co., 510 West Thirtieth street, New York, calls attention to its new rotary pump, which is especially designed to give a positive circulation to the water used in cooling gasoline motors, and is claimed to be a sure, simple and inexpensive remedy for the over-heating of water-jacketed engines. It is simple in construction, requiring but little power to operate and when placed in the carriage needs little, if any, attention, there being no valve, springs, internal gears, cams or wearing parts to get out of order. There is only a revolving shaft with its stuffing box, which is readily packed and, having but slight pressure, will last a great length of time. This appliance, known as the Hart pump, has been adopted by some of the most prominent manufacturers and can be readily applied to any machine with little trouble. It can be coupled direct to any shaft running over 350 revolutions or connected by gearing or belt and can be run as high as 3,000 revolutions without fear of injury. It is guaranteed, weighs 5 pounds, is 5 inches high and sells at \$15 and \$20.

PHENOMENAL MECHANISM

A new four-cylinder compound steam engine has been placed on the market by the Ofeldt Automobile and Steam Launch Co., of 111 Academy street, Newark, N. J. It is simple in construction, dust proof, self oiling and it is said, needs little attention. The engine has no eccentric, no eccentric rods and no piston rods. The crank, connecting rods and all other moving parts are entirely enclosed within the engine. The manufacturers claim that there are no parts that can get out of order, that the engine will stand any amount of shaking on rough roads, and is as well adapted to steam trucks and light steam carriages as to launches.

One sight feed oil cup, connected with the steam supply, lubricates every part of the motor without the assistance of the engineer's oil can. The engine has only two stuffing boxes, one under no steam pressure, the other under low pressure only. Superheated steam can be used to advantage, thereby saving in water and fuel.

The company has also brought out a new water tube boiler, the coils of which, it is claimed, will not burn out even if

INFORMATION FOR BUYERS.

red hot, nor will they leak in the connections. The normal steam pressure it carries is 200 to 250 pounds. Mr. Ofeldt, the inventor of both the engine and boiler was the originator of the naphtha marine engine and was for many years connected with the company that controls this type. His company has built several wagons fitted with his engine and boiler and they have successfully withstood a series of severe tests.

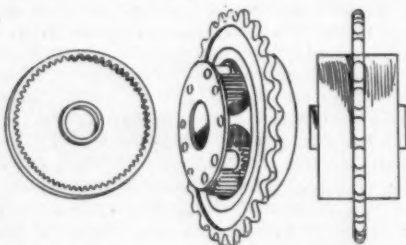


BRAKING AN EQUALIZING GEAR

In a recent issue attention was called to the questionable practice of applying the brake through the equalizing gear and apropos of this the Brown-Lipe Gear Co., of Syracuse, N. Y., invites the attention of the public to a new pattern of its equalizing appliance wherein this objection is largely eliminated.

The pattern in question is the No. 4, so constructed that the brake is applied, not through the working portions of the gear as is usually the case, but directly upon that member which is attached to the driving axle, by which more direct application it will be readily seen, the number of parts wherein breakage is liable to occur is greatly reduced.

In this particular pattern the diameter of the drum is 8 inches, width 4 inches, hubs projecting $\frac{3}{4}$ of an inch on each side, and receives axles from $1\frac{1}{4}$ to 2 inches in diameter. The braking surface has a width of about 2 inches on each side of the sprocket and is designed for two brake bands, each affecting the wheel on the side to which it is attached. This pattern differs from the regular spur gear



Brown-Lipe Equalizing Gear.

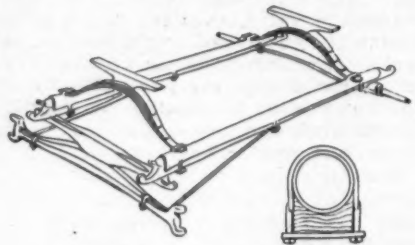
type principally in that the gear, which is attached to the driving axle, is of the internal variety, thus allowing the braking surface described. The company also makes a model 3, of similar pattern, designed for use on lighter vehicles.



PNEUMATIC VEHICLE FRAME

The accompanying illustration shows a pneumatic device for the purpose of absorbing the shocks to which a vehicle is

subjected in traveling over a rough or uneven road. Two parallel reach-bars, connecting the front and rear axles, are concaved to receive two long pneumatic tubes or cushions, each provided with a valve at one end. Curved saddle plates



Pneumatic Vehicle Frame.

cover these tubes and are prevented from accidental displacement by clips which pass under the lower portion of the reach. On these plates are seats for the reception of the cushion springs for supporting the body.

It is claimed by the inventor, Wm. W. Humphreys, of Sheffield, Ill., that when the cushions are inflated the jolting of the vehicle is entirely absorbed and that only a gentle rocking motion is felt by the occupants.



HOFFMAN'S EQUIPMENT

The Hoffman Bicycle Co., of Cleveland, reports a satisfactory business in both wholesale and retail departments. Much attention has lately been given to the construction and manufacture of a single seated, Stanhope pattern automobile, a number of which are expected to be ready for the market some time in July. The company uses an engine weighing about 80 pounds, with capacity of 10 indicated horsepower, 3-in. bore and 4-in. stroke. All wearing parts are turned from Jessop tool steel. The vehicles are equipped with Brown-Lipe spur gears. The water capacity is 40 gallons and gasoline 10 gallons.



NEW CATALOGUES

The Marsh motor bicycle, which is one of the pioneers and which has been previously presented in this paper, is fully described in a neat, comprehensive catalogue issued by its maker, the Motor Cycle Mfg. Co., of Brockton, Mass. This company is successor to Marsh Bros., who first brought out the machine. According to the catalogue the company not only sells the motor bicycle complete, but also markets the motor and accessories separately.

The Crest Mfg. Co., 83 Portland street,

INFORMATION FOR BUYERS.

Cambridgeport, Mass., has recently added several new ones to its list of folders, illustrating and describing Crest motors and accessories. These little folders are talkative and intelligent in their work.

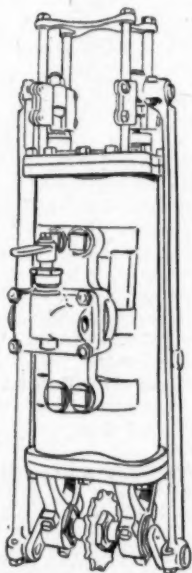
The Joseph Dixon Crucible Co., of Jersey City, has fresh from the press a handsome and exhaustive catalogue outlining the entire range of Dixon graphite productions, which, in some form or other, enter nearly every industry in the land. It is an interesting booklet, even to the man who has no use for graphite other than that in his lead pencil.



FOX VALVELESS ENGINE

A new steam engine of unique design has just been placed upon the market by the Rochester Steam Motor Works, 149 Cady street, Rochester, which claims for it extreme simplicity of construction and ability to develop great power on a small consumption of water.

The novel feature of the engine is the absence of valves, one piston and cylinder acting as a slide valve and steam chest for the other, in alternation. The cylinder is $2\frac{1}{2}$ inches bore and 3-inch stroke. The piston rods, cross heads, etc., are at the top of the cylinder, thus being kept



Fox Valveless Engine.

out of the way of mud and dust and placing the strain of the chain and sprocket wheel on the end opposite the working parts.

The throttle valve is extremely simple and is so designed that the engine may be started, stopped or reversed by the

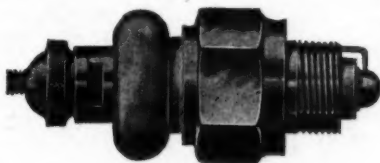
use of but one lever. Dispensing with the usual slide valve and accessories so reduces the number of parts that in the Fox engine there are but six oiling points. The stuffing boxes being on top of the engine are readily accessible from the floor and in the event of packing blowing out can be conveniently reached without getting under the wagon.

An engine developing 4-horsepower on 100 to 120 pounds of steam occupies a space 4x9x25 inches and weighs, complete, about 55 pounds. The motor is provided with feed pump and sells at \$200.



DESBERON'S NEW PLUG

The Desberon Motor Car Co., which for the past year has been located at New Rochelle, N. Y., will next week move to a large building at the corner of Twelfth avenue and Fifty-first street,



Desberon's New Plug.

New York. The structure has been especially arranged for the company's requirements, and among other features will have a pit 16 feet wide by 40 feet long.

The company is working on a number of light gasoline carriages and has had in operation a long time a big four-ton truck. This has been tried by a number of New York business houses and has resulted in the firm receiving several orders for similar wagons, necessitating the removal to larger quarters. In constructing its gasoline carriage the company produced a sparking plug which gave so much satisfaction that it decided to place it on the market. The plug consists of a metal body and two porcelains held together by a steel bolt and suitable nuts with asbestos washers between. The spark jumps from the platinum wire to the steel bolt head. The screw thread is straight, 7 inches in diameter, 18 threads, and will fit all American and foreign engines using standard plugs. No cement is used, so that the plug can be repaired on the road or repacked by anyone.



IMPROVED STEAM GENERATOR

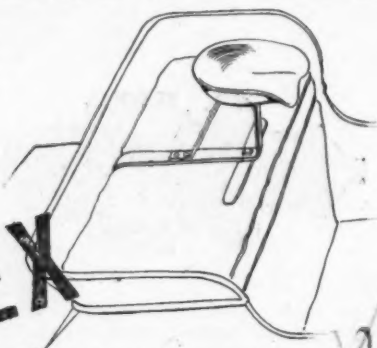
Charles F. Ruby, of Chicago, has arranged with the Rose Steam Generator Co., 197 Canal street, to manufacture a steam generator of his design. The first

INFORMATION FOR BUYERS.

of these generators was built by Mr. Ruby 11 years ago for experiments in aerial navigation and he has spent the last three years applying it to the use of automobile manufacturers. He describes it as of the flash type but says that it does not consist of coils, and that it is indestructible and automatic without the use of small devices such as pumps or floats. Patents are pending so the inventor does not care, at the moment, to furnish full details.

SUPPLEMENTAL SEAT

A novel device is the supplemental seat shown in the accompanying illustration, the invention of Nelson Marsh, of Bernardson, Mass. The seat has a skeleton



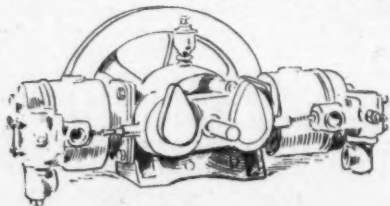
Marsh's Supplemental Seat.

frame, the horizontal part of which rests on the cushion. A downwardly projecting hook embraces the rear of the cushion and a firm support is provided by a cross bar, as shown.

The attachment is intended to be placed in the middle of the seat and, being elevated, will interfere but little with the occupants of the regular seat.

MORGAN COMPANY'S MOTOR

The Morgan Motor Co., 55 Furman street, New York, is manufacturing a compact and durable appearing machine.



The Morgan Motor.

in its new 4-horsepower motor. It is double cylindered, water cooled, and guaranteed to give 4-horsepower at 500 revolutions. The bearings are of ample dimensions and well arranged for taking up

wear. The ignition is of the jump spark type.

This company also has on hand castings and finished motors of several varieties as well as running gears, accessories, etc.

The Columbia Lubricants Co., 22 Burling slip, New York, reports a big demand for its Monogram brands, Nos. 90 and 91, bicycle oils. These oils are put up in round top bottles with screw caps. They are high grade light oils, especially intended for automobile and bicycle use. They cannot gum or harden and are suitable for cleaning, polishing and preserving all metal work, besides keeping the same clean and free from rust and preventing its formation on the parts to which it is applied.

M. J. Dobler, of the Munger Vehicle Tire Co., has just returned from the west, where he has been traveling for his company since the Chicago automobile show. Mr. Dobler, who can show more enthusiasm over his goods in one minute than the average salesman can in one hour, modestly says that he is well satisfied with his trip. Reports from other quarters show that the Munger tire met with hearty approval wherever its advantages were demonstrated.

The gasoline motor which Mohler & DeGress, of 282 Albert street, Astoria, N. Y., have placed on the market, has a cylinder valve chamber and head all in one piece. The motor, which generates 5 1-2 horse power, has a large water chamber, drop forged cranks and aluminum base. The firm is also making a specialty of radiating coils, one in particular having eight tubes, which lists at \$25. The firm is looking for good agents to handle its goods.

The F. B. Stearns Co., of Cleveland, has been put to considerable trouble on account of strike. Their men "walked out," and the factory was closed for a week, but it has started again and is running overtime to make up for this delay. The company has a capacity of about one rig per week, but is several months behind orders. Plans are being made for enlarging the plant considerably. The principal changes in 1901 vehicle are automatic oilers, radiator, located in front, and an automatic spark governor.

Sipe & Sigler, of Wood street, Cleveland, are making special batteries for gasoline carriage in various sizes. They have received an order from one concern for 250 sets.

Charles Miller, of 97 Reade street, New York, has just received an importation of French horns. Everything for the automobile trade, is Miller's motto.



CYCLING SPORT AND PASTIME



PARIS, May 31.—One thing is certain about Major Taylor—he is making a racing tour of the continent seldom equalled. His future here as scheduled is as follows:

June 3, open sprint race at Berlin; June 5, match with Ellegaard at Copenhagen; June 6, match with Willy Arend at Hanover, Germany; June 8, 10-mile match with Robl at Leipzig, Germany; June 10 at Antwerp; June 13, at Toulouse, southern France; June 18, at Bordeaux; June 24, at Turin, Italy; June 26, at 5 p. m. at Cherbourg, on board steamer Kaiserin Maria-Theresa, to race against time for America and home.



HOW TAYLOR WON

There can be no shadow of doubt that the description of the first series of matches between Jacquelin and Taylor, published in this paper, was the best which reached this country. It was furnished by the manager of the track at Brussels. This paper is indebted to the same gentleman for a description of the scene and the races in which Taylor, in the return match, disposed of the French champion with such ease as to cause doubt of the genuineness of the race. No matter what impression may prevail on the other side, those people who know Taylor best are well aware that, no matter what the result, the matches have been run on the square. The report follows:



Paris, May 27.—I will not wait until tomorrow night to send an account of the two days' races together. There will be too much emotion to go up against when the black man will try to revenge the battle royal lost on the 16th. Yesterday's meeting was a great one, a description which we track people cannot often give to a meeting even if the prices are fat.

I left Brussels Friday in company with Mr. and Mrs. Duwearts. We made the trip on a new Metallurgique vehicle of 8 horsepower and it did fine work. Sunday started with a fine, blue sky and warm weather, and when we arrived at the

C—

Prince track at 1:45 there was already a large crowd. The event of the day was the great Pentecote prize. Riders from many lands, from Italy, Belgium, Germany and Austria were competitors, and it looked like a real Grand Prix.

Grogna, Jenkins, Prevot, Jacquelin, Seidl, Gascoyne, Didier-Nauts (last year's world's amateur champion, who defeated Huber in his heat), Momo and Bourotte crossed the tape winners in their heats.

In the first semi-final, Momo remained last until 100 meters from the finish, when he started his effort and passed the amateur and Gascoyne, finishing half a length ahead of the Englishman.

In the second semi-final Jacquelin was almost defeated by Jenkins, who had kept on the champion's wheel and made a fine effort 20 meters from the tape. In the third semi-final, Bourotte started his jump at the 250 mark and with remarkable effort kept little Grogna from gaining an inch until the last five meters, when the Frenchman weakened and the Belgian won by inches.

The final was thus international, Italian, French and Belgian. It was a slow race until after the bell, when Jacquelin, somewhat afraid, took the lead. In the middle of the last turn Momo jumped, but Jacquelin caught him, and Grogna caught Jacquelin. Once in the home stretch, all three were on even terms and the battle was great. The Belgian passed Momo, and then the Frenchman passed Grogna, winning by half a length.

The 10 kilometers premium race had 20 starters and Gascoyne won it.

The tandem race, for which the German team—Huber-Seidl—had come, was like a walk-over for them. Although such teams as Gascoyne-Jenkins, Grogna-Prevot were in it, they won the final from Grogna-Prevot by six lengths, covering the last 100 meters in 10 4-5 seconds.

The spectators numbered about 6,000. To-morrow there will certainly be twice that many.



Paris, May 28.—Amid a still larger crowd than on the 16th, fully 23,000 of us, did your great Major Taylor "eat up" our champion. It was a victory from

which there is no appeal, and I must now recognize that Taylor is the better man. He is "it" without doubt, even if Jacquelin defeats him ten times straight. Why?

Because the weather was warm and fine, which, while to the greater advantage of the American, is also to the advantage of the Frenchman.

Because the French crack won a great race the previous day defeating a fine lot of good riders.

Because Taylor began his effort only after Jacquelin had already started his famous jump, and then passed him so easily that Jacquelin, in each heat, gave up before the tape, which I do not remember he ever did before.

This seems to be conclusive and without appeal.

Yes, you were right. You certainly had good sense when writing your many articles to the *Velo*, pointing out that "over there is a man who may some day, except on Sunday, come over and eat our great men without any champagne or red wine, but just with clear, healthy water." You certainly have done much in the way of opening the road to Paris to this real successor to Zimmerman.



Here is how the two heats were run. In the first one Jacquelin broke a pedal a few hundred meters after the start and another start was given. Jacquelin was first to take the lead, but soon began his standstill exercise. The major, however, kept a full length in the rear and was never in danger of being forced to the front. In coming out of the first turn of the last lap, Jacquelin put up more speed, increasing the same right along, so as not to be surprised by a jump by Taylor. No change occurred until about 170 meters from the finish, when Jacquelin, in a magnificent effort, jumped away, taking a small length. The major responded immediately, and in two or three swings was on even terms. Then we had the impression that a battle without equal would follow, but to our utmost surprise Taylor seemed to walk by his competitor and left him "sur place," or on the spot. It was so irresistibly easy and strong that Jacquelin gave up and the American crossed the tape a winner by four full lengths. It was so rapid, so different from the 16th, that hardly a yell, either for Taylor or Jacquelin was heard. Nobody seemed to understand it.



Next time the start was even slower than in the first one. Finally the starter came running and ordered the riders to go at some speed and Jacquelin went to the front. This heat was the most extraordinary one I have ever seen and the one which made up my mind as to who is the better man. It was loafing until the

bell, after the quarter and even after the 200 meters mark. A little later Jacquelin jumped away taking almost a length and a half. It seemed all over for the Major in view of the short distance, less than 160 meters (about 175 yards.) However, he came back like a bullet, with unshown power but with rapidity, like a flashlight. When he had caught his rival he remained behind him for a moment while the latter was pushing as if for life. In less than 25 meters the black fellow was on even terms and then "walked" off like the man who smokes a cigar. Again Jacquelin gave up, leaving the victory to the champion of America, now the world's champion, by three lengths.

This time the applauds came out fairly well but they were nothing in comparison with the greeting of Jacquelin on the 16th. The race was so easily won that the crowd did not understand it and some of them started to yell "robbers," "fake," etc.

Major Taylor was given the silver cup which Mr. Delancey-Ward, the American sportsman in Paris, had offered to the winner of this great match.



In the scratch race all those who had run yesterday, except Jacquelin, took part. Grogna won by half a length from Huber and Bourotte. Twenty-seven riders took part in the lap race which was won by Bourotte from Gascoyne. A ten-mile paced match between Charles Miller and Bouhours was won by the latter by 1 3-4 laps in the remarkably fast time of 14:45 1-5, tandem pace, as against Bauge's world's record, behind tricycle, of 14:22 2-5.



McFARLAND WINS AT BOSTON

Boston, June 9.—Yesterday was sprinters' day at the Revere track, and from a racing standpoint the meet was a great success, as the contests were of the hottest kind from start to finish. No paced racing was on the card, but the 25-mile race was acknowledged by those who know racing to have been far more exciting than any paced race possible. It was won by McFarland, Jacobson second, Moran third and Nat Butler fourth.

In this event 19 of the best riders in America started, and it was such a big bunch that they were sent away in five rows.

A special prize was offered the leader at the end of each mile, and as it was sufficient for car fare some of the men were anxious to take all they could get.

It was on the ninth mile that the first big jump that meant business was made. Jacobson and Walthour were riding in front when the New Haven man turned loose. Before the field got started Jacob-

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son had them all but caught. The first man he passed was Downing, who left the race. The New Haven rider having one lap to the good naturally drew the mile money until the 16th mile, when McFarland went after a lap.

On the 10th mile Turgeon quit and on the 12th Cooper punctured his rear tire and retired as did Collett for the same reason. On the next mile Butler, Fenn and Walthour quit.

On the 15th mile McFarland shot out of the bunch and shook the entire field with the exception of Joe Downey. They opened up half a lap on the bunch. Downey went out like a fiend and pulled Mac within 40 yards of the bunch, when he fell by the wayside and lost a lap.

McFarland soon got back the lost lap, as did Morgan his, going into the lead at 16 miles. It was then Moran, McFarland and Jacobson a lap to the good on the field. McFarland scored his first lap money on the 23d mile. Jacobson led on the 24th mile and then jockeying began for the finish.

Coming down into the back stretch of the last lap Nat Butler tore loose; with McFarland on his rear, and the two handicap kings left the bunch standing still. McFarland nipped Butler at the tape. The finish was McFarland first, Jacobson second, Moran third and Nat Butler fourth. Time 1:28.

The pursuit race between Moran and Jacobson lasted a trifle over two miles and was won by Moran.

A trio of amateurs from New York came over to test the speed of McConnell and Mettling, the star amateurs of this section, and the three carried off two firsts and two seconds.



MICHAEL TAKES SECOND PLACE

Philadelphia, June 10.—Few of the 3,500 or more spectators at last Saturday's 30-mile race between Michael, Pierce and McEachern had failed to pick the little Welshman as a winner, and the surprise of the crowd can be imagined, therefore, when in the last lap of the 29th mile the Nova Scotian went past the Welsh pocket edition in about the same manner that the limited meanders by a flag station, and garnered such a lead before the Rarebit's pipe went out that the little one found himself about 100 yards to the bad when the crack of the finish gun waked the echoes of Woodside Park. And right here it is proper to say that "Otchle" McEachern, had the Fates treated him half-way decently, might have landed first money himself; but broken motors and the "bellows to mend" consequent upon a long stern chase and a successful effort to make up a lap and a half

combined to put the Canuck in anything but first-class sprinting shape while the closing agonies of the last couple of miles were in progress. As it was, he was beaten by a scant half lap, and was given a hearty hand by the grand stand for his plucky exhibition.

It was a race well worth witnessing, and while the time was nothing remarkable, the constant changing of positions by the contestants kept the spectators on the qui vive throughout. McEachern was the first to hook on to his pace, followed by Michael and Pierce. "Otchle" held his advantage till the middle of the second mile, when the "Rarebit" moved to the front. On the third mile the Canuck collared the command once more, only to have it wrested from him by the determined little Welshman before the finish of the fourth. Wales-Canada-Nova Scotia was the order also at the conclusion of the fifth mile, but on the sixth both McEachern and Pierce swung around the mighty mite, and this was the order of the procession until the middle of the ninth mile, when Mac's motor went wrong. The other two gentlemen didn't stop to inquire into the nature of the trouble, but lit out like all possessed, and before "Otchle" could get into his stride again he was observing the battle from an apparently safe position about a lap and a half in the rear of the firing line. Nothing daunted, the Canadian set sail for the scene of action, and just before the conclusion of the 20th mile nabbed Pierce and was within striking distance of the little fellow, who had taken the lead from the Nova Scotian after the latter had held it from the 9th to the 13th mile.

McEachern's effort had told on him, but nevertheless he held the place behind Michael until the end of the 27th mile, when Pierce moved up to get into range for the last rounds. When the leaders quickened the pace Mac began to drop back, and in a lap or two was out of it. Things looked decidedly Michaelish at this juncture, and with but two miles to go almost everybody said the little one was the only one.

But despite the fact that the racing shirt he wore was of the short-sleeved variety, Pierce must have had both sleeves well filled with speed. He brought it down and put it on exhibition just as the 29th mile-post heaved in sight over the port bow, sailing past the Welshman as if the latter's mainmast had buckled and gone over the side. This brought the crowd to its 7,000 feet, for it scented a possible Garrison finish. But Michael and his merry men were not up to it, and after placing about 100 yards of good, honest June daylight between them and their pursuers, the Pierce party held 'em

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safe for the remainder of the journey, and crossed the paint mark just as the Rare-bit swung into the stretch and straightened out for home. Pierce's time was 48 minutes 58 seconds and Michael's 49 minutes 4 2-5 seconds.

Some amateur importations from Buffalo and New York made things decidedly interesting for the local "pures" in the preliminaries. The locals haven't had enough real racing to season them, and the result was that Mark Hurley, of Gotham, won the finals of the third-mile handicap and the mile open (the former in :41 from the 5-yard mark and the latter in 2:34 1-5), while Bardgett and Zimbrick, of the Pan-American Exposition city, upset the calculations of all the Quaker teams in the hexagonal Australian pursuit race, catching the last couple, Gilpin and McGeorge, after going four miles and one lap in 9:33. George Van Hest, winner of the Decoration day road race time prize, tried hard to nip Hurley in the final of the mile open, but the best he could do was to beat Zimbrick, the Buffalonian, for the place.

L. A. W. ANNIVERSARY

The last day of May was the 21st anniversary of the formation of the League of American Wheelmen. Of the original 200 who assembled at Newport, R. I., on that memorable occasion, only 20 are still members of the organization. They are Colonel Albert A. Pope, Edward W. Pope, A. S. Parsons, George H. Day, Samuel T. Clark, William B. Everett, E. C. Hodges, Elliott Mason, H. B. Hart, P. F. Brown, W. S. Slocum, A. F. Webster, Arthur L. Atkins, E. K. Hill, H. L. Willoughby, Will R. Pitman, Joseph Pennell, H. H. Blakiston, Kirkman Munroe and Charles S. McCulloch. Of these twenty only four can now be truly termed active riders.

McFARLAND WINS AGAIN

New York, June 10.—Cycle racing enthusiasm is growing to a marvelous extent in Newark, and the greatest crowd in the history of the track assembled at Vailsburg yesterday, to witness the races, 10,000 people probably not being very much of an exaggerated estimate of the attendance.

The star event was a ten-mile professional race with well distributed prizes. The race attracted 25 starters, embracing about all the leading sprinters in the money-chasing class. The intermediate prizes kept everyone hustling and attending to his own business, so there was no team work noticeable and the prize winners well earned their rewards. In a glorious battle to the tape, the indomit-

able McFarland proved the winner in 23.48, with Walthour second, Newhouse third and Kramer fourth in a blanket finish feet and inches apart. Krebs, Kimble, Hadfield, Walthour, Collect, Coburn, Kramer and Babb were the leaders at the miles.

M. L. Hurley, the Bostonian, now resident in New York, proved himself the easy superior of the other amateur cracks at the present going, for he won the half-mile open and the two-mile handicap with ease from scratch against the pick of the eastern pures. In the handicap the long markers sat up early in the race, and left the finish a fight among the back markers. Schrelber and Gus Welsing, 30-yard men, were second and third, and Walter Bardgett, of Buffalo, was fourth from the 90-yard mark. The time was 5:20, though the trials showed much faster going.

THE FOREIGN INVADERS

New York, June 6.—Tom Linton has gone to Boston to prepare for his series of matches. He brought with him two French pacing tandems fitted with Aster motors, and a Gladiator bicycle. Four expert Parisian pacemakers came with him, two of whom will also be used by Albert Champion in his races.

Another pair of foreign invaders are Gascoyne and Jenkins, English professional sprinters, who will follow the national circuit. They will also ride tandem together and are especially looking for the scalps of the Butler brothers.

COMING CHICAGO EVENTS

Entry blanks for the Pullman road race, which occurs on July 4, are ready and may be obtained of C. P. Root, 340 Dearborn street, or at any of the sporting goods stores. The prize committee has already secured four high-grade bicycles for prizes and hopes to raise the number to ten. A motor bicycle is talked of as the first time prize.

On Sunday, June 23, the first run of the season of the Illinois division of the Century Road Club will be held over the Libertyville-Waukegan course. There will be a fast and a slow division to accommodate all comers.

ENGLISH CRACKS ARRIVE

New York, June 7.—Thomas Jefferson Gascoyne and Sydney Jenkins, the English sprinters and reckoned as the best tandem team in Europe, arrived yesterday morning on Kaisirin Maria Theresa. They have gone to Manhattan Beach to train. As members of the A. B. C. team

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they will follow the national circuit and will also compete in professional tandem matches.

Gascoyne was born at Chesterfield, is 24 years old and has raced since 1893. He is a crack unpaced rider and has never been beaten in a pursuit race. At Crystal Palace he rode an unpaced mile in 2:05 2-5 and lowered the flying start unpaced quarter to 25 2-5. He has beaten the best European riders, including Barden and Huber, and has finished ahead of Jacquelin several times.

Sydney Jenkins is 27 years old and is the English champion at a quarter, a mile and five miles. He and Gascoyne hold the European tandem championship. He is a brilliant finisher at the Parasian style of racing.

Gascoyne expressed himself as ready to accept Hadfield's challenge to a pursuit race.



HADFIELD AFTER SCALPS

Flushed by his success at Buffalo Charles Hadfield, on Saturday, issued an open challenge to all the unpaced riders of the country. Hadfield offers to ride any man a five-mile pursuit race for a side bet and purse, the winner to take all. He is desirous of meeting Gascoyne, the English unpaced rider, and will meet John T. Golden, of Trenton; "Jimmy" Casey, of Worcester; W. S. Fenn, of Waterbury; Floyd A. McFarland, of California; John Jacobson, of New Haven; Ray Duer, of Buffalo; "Nat" Butler, of Boston; Frank Butler, of Boston; "Joe" Downey, of Jamaica Plains; "Archie" McEachern, of Canada; Harry Elkes, of Glens Falls; Harry Caldwell or any other rider who accepts the challenge. In his race at Buffalo on a badly lighted track, Hadfield lowered the colors of Ray Duer, the unpaced rider, in a five-mile pursuit race, going the distance in 11:44, within six seconds of world record time.



A RACE AND A FIGHT

The Great Prize of Nantes was run at a two days meeting, May 26 and 27. The heats were run off the first day and won by Ferrari, Deleu, Vanden Born, Michells and Bixio. In the 900 meters handicap Ferrari, scratch, won by half a length from Deleu, (15 meters) while Bixio (10) was the same distance ahead of Vanden Born, scratch.

In the 20 kilometers paced race a serious accident occurred. Pechar, on a motorcycle, who was pacing Bernard, touched the tandem of Germain in entering one of the turns, the groups being side by side. The two riders could not

avoid the fall. About five meters behind another one was coming head down at full speed. However, he avoided the mix-up but could not control his machine and went straight up and through the fence. Happily he was but slightly injured. Finally Bernard won the race.

On the second day the semi-finals of the Grand Prix were run. In the first, Vanden Born, having taken the lead at the bell, went forward and kept Bixio on the outside during three-quarters of a lap. Suddenly, in entering the home stretch and pretending he had been fouled by the Belgian, Bixio put up his hand and gave up. On coming to the racing quarters the Italian made threats against Vanden Born, and the latter, quite frightened, did not care to run the final, which he did, however, after an official had told him he would be disqualified if he did not start. In the meantime Ferrari had won the second semi-final and Bixio the qualifying consolation race. All three came and lined up for the final. Soon after the start Ferrari jumped away and took several lengths. Vanden Born went after him with Bixio on his rear, when suddenly, Bixio, who was closely following the Belgian, fell. Bixio got up and took his machine and waited the passage of Vanden Born to throw his bicycle in front of him, which no doubt might have resulted in a bad spill. Happily a local rider was on the inside of the track and ran just in time to push the angry little Italian aside. Vanden Born was scared at the yells of the crowd and gave up all effort, and this race was declared off. The crowd jumped over the fence and took a hold of the Italian whom they punished with punches, slaps and kicks, until finally some one interfered and took the rider to his cabin.

On the following night before 1,000 people, the final was run again and this time proved a match between Ferrari and Vanden Born which the latter won by a few inches after a fine struggle for nearly 200 meters. With Bernard as team mate the Belgian also won the tandem race.



METROPOLITAN RACING

New York, June 8.—Chairman Batchelder left for Albany to make arrangements to have the track there added to the June circuit of race meets. This circuit he has been engaged the past two weeks in forming with a view to giving the professionals plenty of prize money to battle for until the national circuit opens at Woodside Park, Philadelphia, the Saturday following July 4th. The meets already arranged for, including the Vailsburg Sunday meets, show an aggregate of \$3,500 in money offered for the sprinters and the

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leading ones have signed to follow the entire preliminary circuit.

A bunch of big meets is scheduled for the metropolitan district in the near future. Next Saturday the Atlanta Wheelmen, of Newark, will hold its annual meet at Vailsburg with a paced race between Arthur Ross and Floyd McFarland as the leading feature.

The following Saturday Brady will open Manhattan Beach with a six cornered paced race, in which \$1,625 will be divided. On the Monday night following the night meets will begin at Madison Square Garden. Floyd McFarland, by the way, brought two French pacing tandems from Europe, and will ride any one in the world at the Garden for \$1,000 a side.

The Kings County Wheelmen will hold its twentieth annual meet at the Beach on June 29th and night racing will begin at the wind swept track on July 4th. Voigt will also probably start night meets at Vailsburg after the Fourth and Sunday and night races are promised at the Hoboken coliseum before the month closes.

RYSER WINS A RACE

May 26 and 27 a 12-hour race in two sections was given in Cologne, Germany. Owing to rain it was reduced to five hours on the first day. At the conclusion of the first day Simar was first, leading with 230 kilometers, against 224 for Ryser. During the second day Simar had several punctures and during the tenth hour lost his place to Ryser who won the race, having covered 483 kilometers, 100 meters in 11 hours. Simar was second, followed by Kerff and Bauge.

\$1000 WORTH OF PRIZES

The Tinkham Cycle Co., of Grand Rapids, Mich., which promoted a successful road race on Decoration day, announces another for the Fourth of July. The prize list is headed by a \$350 piano, and there are \$1,000 worth of prizes in all. Entries will close June 29. Riders from Chicago, Milwaukee and other cities are expected to compete, the prizes being liberal enough to attract good men from all parts.

THREE CORNERED MATCH

Watson Coleman, Arthur Ross and Fred Hoyt will engage in a three-cornered, 25-mile motor paced match at the Revere track on Saturday. That Ross is traveling fast is shown by the work he did at Charles river recently. Watson Coleman is doing some rapid work, and according to the Baltimore papers, the only reason

he did not put up a better showing when he last met Jimmy Michael was lack of pace. In training Coleman has certainly exhibited ability to follow pace at a good fast clip. In recent trials at the Revere track, where he has been for a couple of weeks, he has repeatedly gotten below 1:36, and in a 10-mile workout recently averaged a fraction of a second slower than 1:37.

Fred Hoyt is really the unknown quality in the race. He has been engaged in acting as a pacemaker for Harry Elkes, up to the time of the latter's accident, but since then he has followed the motor in good shape.

Hoyt is certainly securing his share of speed behind the motors. He is well pleased with the result of his work so far, and promises to exceed the expectations of the manager of Nelson, when a year ago he picked him out as a coming pace follower, although not putting him into a contest.

A FOOL EXPERIENCE

"A friend of mine," says a writer in a Cleveland paper, "had a painful experience recently.

"What seemed to trouble him?" inquired a listener.

"This friend of mine rides a bicycle," said the first speaker, "and one dark night a short time ago he was speeding along the street when he suddenly saw two red lights ahead of him. Thinking they were attached to bicycles, he thought to pass between them.

"He bent his head over his handle-bars and put on a little extra speed. He was brought to a sudden and painful stop. The lights were attached to an automobile and he had collided with the rear end of it."

RACE IN BUENOS AYRES

There are still quite a number of European riders in Argentina. Last month Singrossi defeated Eros in two straight heats on the Palermo track in the above named city. Cornet took the handicap and Jacquolod the 20 kilometers paced race. In the multicyle race Singrossi-Pereda (240 meters) won, the gasoline tandem ridden by Dantes-Dartiguelongue (scratch) being second.

A. B. C. PACING MACHINES

Syracuse, June 10.—A novel combination push chair and combination hand power tricycle is being made at the factory of the American Bicycle Co. It is well provided with springs and the invalid can steer with the left hand and propel the

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machine with the right. It can also be used as a push vehicle. The tricycle made for the Duke of Newcastle is already in England and is giving good satisfaction.

The company has one of its motor pacing machines completed. It has the appearance of being a strong and reliable machine. One will be used immediately to pace Walthour and Fisher, who are already riding pace following machines made by the A. B. C. The new motor machine will be equipped with a DeDion-Bouton $3\frac{1}{2}$ -horsepower motor. It is geared to 121, with 6 and 28-tooth sprockets. The first time Walthour tried his machine he rode a mile in 1:30.

VELO'S LARGE CIRCULATION

People who complain about the decline in interest in cycle racing will be somewhat surprised at the figures here presented which represent the circulation of Le Velo, the Paris daily cycle and automobile paper: May 26th, 100,294 copies; May 27th, 103,587; May 28th, 146,523 (day after second match between Taylor and Jacquelin); May 29th, 104,258; 2nd edition in Paris, 40,000; 2nd and 3rd editions in Bordeaux, 23,000; May 30th, 106,693; total, 624,355 copies in five days.

LINTON'S PARTING SHOT

At the last meeting in which he took part before leaving for this country and which took place in the 9th ult. in Paris, Linton won the 50-mile paced race by 8 laps from Bauge and 11 from C. Miller, covering the distance in the good time of 1:23:50 1-5. In the lap race (10 kilometers) Jue ran away after the first lap and was never caught. He covered the distance in 14:12 4-5, almost record time.

NELSON BEATS CHAMPION

That Champion, the French racer who arrived in this country only two weeks ago, is in anything but the best form was shown in a match at Worcester on Monday evening. The race was 15 miles, motor paced, his opponent being Nelson. Champion held his pace with difficulty from the start and lost it entirely on the fourth mile. Nelson finished in 25:34.

MOTOR BICYCLE RACES

The cycle racing season opened at Indianapolis last Friday when George Leander, of Chicago, captured the professional events. The 5-mile motor bicycle race was won by Harry Gibson, of Cincinnati, on a Patee machine. James

Davis, on a Fisher, of local make, was second, and E. C. Pepper, on an Orient, third.

TWO SMALL GRAND PRIZES

On the 19th ult., Jacquelin won the great prize of Mulhouse, getting \$200 for it. Grogna got \$160 for winning the great prize of Angers. On the same day Bouhours won a three cornered match at Antwerp against Simar and Bovy, over a course of 50 kilometers.

AREND BEATS THE RUSSIANS

Willy Arend, the German champion, took part at two meetings held in Odessa on the 23rd and 26th of last month. On the first day he defeated Outchkine and Heering in the scratch race and on the second day he won his match against the Russian champion in two straight heats.

INTO A NEW CLUB HOUSE

One of the liveliest cycle clubs in the northwest is the Flour City Cyclists of Minneapolis. Although organized in 1898, when other clubs in other cities were going out of business, the club has had a steady growth and at present is flourishing in a new club house of the first-class kind. Every effort is being made to increase its membership and yet cycling as a feature of the club's purpose is not belittled by a multitude of social attractions, the directors and old stand-bys of the club believing that there is sufficient interest in cycling, cycle paths, etc., to warrant the maintenance of an energetic body. The Minneapolis Tribune lately devoted all of the reading space of an entire page to the club, its new home and its doings. The club's officers are: President, A. Westerdaal; vice-president, C. H. Vanderhoof; secretary, Chas. J. Tyrén; treasurer, J. Herman Walstrom. Directors, George C. Merrill, A. A. Hansen, Ben Erickson, H. S. Haynes, L. T. Lincoln.

Cycling club life is by no means a thing of the past despite assertions that the cycle, as a promoter of good fellowship, has had its day. The Danville (Ill.) club has just taken new quarters and elected the following new members: Arthur Frankenberger, T. J. Owens, Fred Baumgart, John H. Nungesser, W. F. Wilkin, Harry Morris, George J. Walz, H. Hardy, E. H. Jobson, Carl Metzger, John Boudinot, Thomas J. Flynn, Fred Jonnke, E. F. Royce, A. N. Anker, J. W. Galloway, B. Levin, D. D. McDaniel, C. Renchew, Charles W. Karns, O. W.

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Allison, Sam Merrill, M. H. Force, Jeff Carson, R. E. Gammel, C. E. Hooton, Guy Bridges and Dr. G. W. Poole.

The Ladies' Cycling Club, the only wheeling organization in Syracuse, which is in a prosperous condition, and which does annually more for sidepaths than any other single organization, held its ninth annual meeting last week and elected Miss Fannie Pitts as president; Miss Ethel Norris, vice-president; secretary, Miss J. E. Griswold; treasurer, Miss Rae Levy; captain, Mrs. R. R. Scott; lieutenant, Mrs. L. G. Levy. The club holds weekly runs Wednesday evenings.

A. G. Batchelder, chairman of the National Cycle Association board of control, complained, on his arrival in New York, that the Parisians like this paper so well that he was unable to see a copy of it in the offices of *Le Velo*, whose editors declared that visitors purloin it persistently and regularly.

The South End Wheelmen, one of Philadelphia's best known cycling organizations, and famous for its race meets in years ago, wound up its affairs last week, paying up every cent of its indebtedness before going out of existence. It was organized in 1886.

A. R. Bloomfield, of 522 North Meridian street, Indianapolis, writes as follows: Harry A. Gibson has returned to the track and will ride this year in both middle distance and sprint races. He is open for match races also.

President Dreyfuss, of the Pittsburg base ball club, states that he will erect a six-lap cycle track at Pittsburg. It will be one of the best in the country and \$20,000 is the figure of cost given.

President Earle and M. M. Belding, chief consul of New York state, are at Buffalo arranging the details of the league meet to be held there this summer.

THE KEATING MOTOR BICYCLE

From time to time brief hints of the excellence of the Keating motor bicycle have appeared in the press and for a month or more the machine has been on exhibition in eastern cities. Yielding to the desires of the makers, to whom premature publication might prove injurious in the matter of patents, the press refrained from illustrating the machine until two weeks ago when a cut, showing a part of the mechanism, appeared in this paper. The company has now forwarded photographs and a description of the machine from which the accompanying illustration was made and the following details extracted:

We believe, says Mr. Keating, who furnishes the description, that ours is the only motor bicycle and not merely a bicycle with a motor attached. We have only one chain on regular bicycle sprockets. We have a direct drive, the brake applied by the feet, no lost power between the engine and the rear wheel, and the motor is automatically disconnected by a back pedaling pressure, and a second pressure applies the brake. The crank shaft is a combined clutch and coaster brake of our own design, and is controlled by means of the pedals when the rider is on the bicycle, but in case of accident, or lack of gasoline, can be disconnected by a thumb screw, and the wheel

ridden with a perfectly free wheel, as an ordinary bicycle.

We have passed the experimental stage, having ridden one of these wheels over 6,000 miles, and have given it the most severe tests that it is possible to put a motor bicycle through. We have tested it on the coldest days and over snowy roads, and on the hottest days we have had this season. It has given perfect satisfaction.

The electric connection is in the left grip of the handle bar, and by giving this a slight turn to the left you complete the electric circuit from the four cell dry battery, which is placed in a rubber tube, and then enclosed in an aluminum case, which runs from the fork crown to the crank shaft. The coil is held in a similar case on the upright saddle post tube. To prevent any possibility of the power being turned on when the rider is absent, a connecting plug is placed on top of the battery case, and can be taken out and put in the owner's or rider's pocket, thereby insuring against any possibility of short circuiting the battery.

The four controlling levers are fastened on the upper tube, only one of which has to be manipulated when the rider is in the saddle, that being his speed lever, or throttle, as when the rider is ready to start he opens up his gasoline valve by

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pulling the lever toward him, opens his compression valve and adjusts his mixture valve. After hearing the first explosion he closes his compression valve, and then has only one lever to attend to, his speed regulator, in order to attain any speed desired.

That the machine is almost fool proof is proven by the fact that if any one of the levers should be changed by the rider, even if he should forget to turn the grip, or the slightest motion of back pedaling, or should he endeavor to dismount from his pedals in the regular manner, any one, or all of these would instantly stop the motor.

The gasoline is carried in a tank with a capacity of two quarts, sufficient to run

injured. The four dry cell battery which is used is the famous Ametrion, which is also our original idea and the life of which is a 500-mile ride. The entire weight is below the center line of gravity, thereby rendering ease in balancing and steering, and allowing the machine to turn a sharp angle at a great speed.

The price of our regular motor bicycle is \$225.00, and our large motor used for racing and pacing purposes, \$300.00. The weight of the machine, totally equipped, is a shade under 80 lbs. The speed can be regulated from five to 35 miles per hour. As a hill climber, the machine has climbed an 18 per cent grade $\frac{1}{4}$ -mile long, without any perceptible decrease in the speed with which it started.

These machines, in connection with ma-



THE KEATING MOTOR BICYCLE.

30 or 35 miles, and an auxillary tank with a capacity of two gallons can be placed on the rear mud guard, suitable for touring. The entire mechanism of the machine is oiled automatically by a simple device. The rear mud guard is used for a muffler, thereby rendering unnecessary any extra pipes or tubes.

The machine is so constructed that should it fall on either side, no part of the motor or electrical appliances can be

ruined, as the motors, are being manufactured and marketed by the R. M. Keating Motor Co.

Mr. Keating is a firm believer in David Crockett's motto, "Be sure you are right then go ahead." After careful experiments he has now placed his motor bicycle on the market, and will push it with his usual tactful and forcible manner, with the firm determination of upholding the Keating motto, "365 days ahead of them all."





CURRENT AFFAIRS IN THE CYCLE TRADE




Elmira, N. Y., June 10.—The Eclipse Mfg. Co. has been advised that an order has been granted restraining Henry C. Colton, of Buffalo, from selling or offering for sale the Morrow coaster brake under the standard price. The brake is patented and to protect the trade the Eclipse company caused to be executed with all agents contracts in which the agents agreed not to sell below a stipulated or standard price.

In defiance of this agreement it is alleged Colton cut prices or advertised to do so, whereupon the contract with him was rescinded. Subsequently he purchased from another agent handling the Morrow coaster and brake a lot of the patented appliances and offered to sell them at a small profit.

This culminated in the present action, in which the defendant is even restrained from disposing at less than the standard price of any stock of the Morrow patent he may have on hand.

The order establishes a precedent. The matter is to be argued in September. The Edison company has heretofore secured a suitable order regulating sales of the Edison phonograph. Lawyers, manufacturers and inventors throughout the United States will watch with interest the final result of the Morrow case.




EXPIRATION OF PATENTS

The following lists of patents, trade marks and designs are furnished by Davis & Davis, solicitors of American and foreign patents, Washington, D. C., and St. Paul Building, New York:

299,609. Saddle-bags for bicycles, J. B. Wood, Camden, N. J.

299,897. Wheel for bicycles, W. S. Wright, Philadelphia, assignor to N. M. Wilson, same place.




WELL SATISFIED MAKERS

The Globe Cycle Co., of Buffalo, is immensely proud of its success this season. The two young men who are responsible are D. H. Lewis, the old newspaper man and racing enthusiast, and John W. Els-
hofer, who are patted on the back, finan-

cially, by that clever Buffalo contractor and financier, Emil Machwirth, of Machwirth Bros.

The sales this season have been phenomenal and not a little credit is due to the clever advertising which is the output of the fertile brain of Dai Lewis, who is a born advertising enthusiast. The company's advertisements occupy double column space on reading pages of the Buffalo papers and the wording never fails to attract. The Globe has a twelve years' reputation behind it and the present management is keeping up the quality, as the sales attest. The Globe Cycle Co. has done a good jobbing business this year, but is making a special effort in covering Buffalo in a retail way.



RUSSIAN DUTIES RAISED

The information was cabled from St. Petersburg, on Saturday, that the minister of finance had raised the duty on American bicycles and a number of other products 30 per cent, the new regulations to become effective two weeks from the day named.



THE SECOND-HAND HUSTLER

Mr. Shaffer, the Phoenixville, Pa., agent, has adopted a popular and successful way of disposing of second-hand cycles, according to his statement to this paper. He employs an enterprising and clever young Jew, who gets a list of his second-hand machines and makes a canvass, displaying his second-hand bargains to those who are likely to buy. When the writer called at Mr. Shaffer's store, the young merchant rushed in and wanted to know if a certain second-hand machine was still in stock, as he had two customers who would like to get it. Mr. Shaffer informed him that another customer had already bought it, and the young drummer rushed off to try and close a deal for another "just-as-good-as-new." Mr. Shaffer says he finds the plan works splendidly and that he has sold a large number of bicycles that otherwise might be carried over. It leaves an opening for him to dispose of new machines

CYCLE TRADE HAPPENINGS.

and take old ones in part payment, which are in turn disposed of by his outside man.



GOOD JUDGES TOO

Buffalo and Rochester have probably done better in the way of retail sales up to date than most cities. It is a well-known fact that Buffalo has bought a lot of bicycles this season and possibly the Pan-American excitement and the value of a bicycle in getting to the exposition, in preference to the crowded cars, has not been lost sight of. A representative of this paper, while riding around Buffalo, took pains to observe the kind of machines and their equipment used in Buffalo, and judging from what was seen it is apparent that 75 per cent of the bicycles used in Buffalo are medium or low priced. It is also noticeable that a majority of the users of high grades have equipped their mounts with cushion frames and coaster brakes.



RECEIVER APPOINTED

A receiver has been appointed for the Atlantic Tube Co., of Pittsburg. The company used to manufacture bicycle and automobile tubing, but recently announced to a representative of this paper that it had discontinued that branch of the business.



The few changes of ownership which occurred in the bicycle trade during the past week are as follows: Posz & Gleason to Piny & Whelan, Sanborn, Minn.; Himes & Rosenwinkle to A. B. Himes, Ft. Wayne, Ind.; Mr. Himes has made an assignment; Allen-Willis Hardware Co. to M. F. Allen Hardware Co., Paris, Tex.

W. M. Banschback, a wide-awake cycle dealer at Princeton, Ill., promoted a road race on Decoration day and crowded the city streets with people anxious to see the event. Wight Pitkin, a youngster of 13, won it. He won a bicycle presented by the promoter of the race.

Persistent reports are sent out from Middletown, Conn., to the effect that the Keating plant is to be sold. Now it is a New York syndicate which will buy it, and the report adds that an inventory of the contents of the factory is being taken.

No matter what happens to the factory, which, by the way, is one of the finest in the world, it is understood that the manufacture of Keating motor bicycles and automobiles will not be interfered with.

Robert Johnson, formerly of the Wisconsin Wheel Works, is now conducting a cycle factory in Copenhagen, but writes that the opportunities there are not so great as he had imagined before he started.

The Smith & Egge Mfg. Co., well known as a manufacturer of cycle sundries and other goods, at Bridgeport, Conn., has increased its capital from \$60,000 to \$100,000.

Stables belonging to E. C. Stearns, the ex-cycle manufacturer, of Syracuse, were destroyed by fire last week and with them five valuable horses.

Todd's gun store in Montgomery, Ala., has been burned out. Mr. Todd carried a large line of bicycles and sundries, beside sporting goods.

Mr. Overton, of Rhodes & Overton, bicycle and hardware dealers, Rensselaer, Ind., has sold his interest to Mr. Rhodes.

The stores of A. M. Hulsen and L. S. Dickinson, bicycle dealers, of Fennville, Mich., were damaged by fire last week.

Eddie C. Bald, once the king of the speed merchants, announces the opening of a cafe at 521 Main street, Buffalo.

G. E. Clark, of Clark Bros., Garwin, Ia., has sold out one-half his interest. The firm handles hardware and bicycles.

Emerson Shelley has bought out the cycle business of T. S. Wilson, at Gray, Ia., and will add a repair shop.

The North Milwaukee, Wis., plant of the American Bicycle Co. was slightly damaged by fire last week.

Pugh & Rottman, of Terre Haute, Ind., have received two samples of the Patee motor bicycle.

Reaney & White, bicycle dealers, of Tacoma, Wash., will discontinue their business.

Kerley & Co., of Ballston Spa, N. Y., have sold their cycle business to T. W. Nichols.

Wallace Taylor, of Chehalis, Wash., has sold his cycle business to DeWitt Welton.

Musselman Bros. & Co., Wichita, Kan., have sold out their bicycle business.



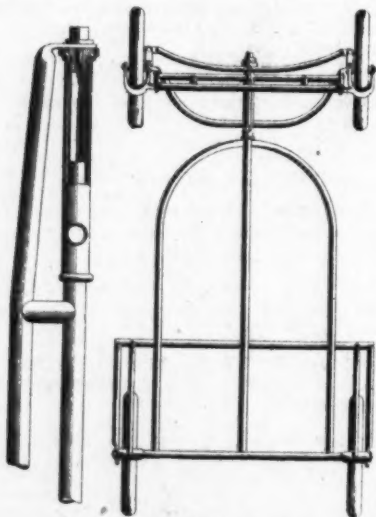


IN THE WORLD OF INVENTION



SIX patents relating to motor bicycles and granted to the same inventor form a considerable portion of this week's bicycle patent grant. Their patentee is Robert M. Keating, of the Keating Wheel and Automobile Co., of Middletown, Conn., and the patents relate in certain instances to features of construction of the newly introduced Keating motor bicycle, which was recently described in this paper and which is further illustrated in another column of this issue. Some of the patents and some of the claims of practically all of them refer to construction which does not appear in the Keating machine as now built.

Letters patent No. 675,387, of this batch, has especial reference to a machine in



Fageol's Running Gear.

which the motor casing is hung in brackets between the bottom yoke and the forward end of the rear fork tubes. The speed reduction is obtained through an internal gear to which the driving chain sprocket is attached and within which are two spur pinions meshing also with the motor shaft pinion. This machine is shown at A in the accompanying illustration.

The machine forming the subject of patent No. 675,389, is driven with one chain, motion being transmitted from the motor shaft to the pedal crank shaft by a spur gear adjacent to the front driving sprocket. A sprocket clutch and back pedalling tire brake are additional features of this machine, which is shown at B.

No. 675,388 presents a machine whose front sprocket is mounted on two clutches, one for coasting and the other for operating the tire brake. In this bicycle the motor drive connection is directly to the chain by means of a sprocket engaging the under run of the chain. It is shown at C.

No. 675,391, is for the motor bicycle frame shown at D.

No. 675,392 presents driving and braking clutch and bottom bracket group which is recognizable as similar to that employed in the machine now on the market. At E are shown the exterior views of these parts, together with a sectional view of the bracket clutch.

No. 675,393 presents a two-part mud guard serving as fuel tank and muffler, and is evidently the basis of the mud-guard muffler of the commercial machine. This patent also specifies a bevel gear chainless transmission. The machine is shown at F.



FAGEOL'S RUNNING GEAR

Letters patent No. 675,379, dated June 4, 1901; to Rollie B. Fageol, of Des Moines, Iowa.

While this invention has numerous objects the most noticeable feature relates to the running gear and more particularly to the suspension of the wheels in forks similar to bicycle front forks.

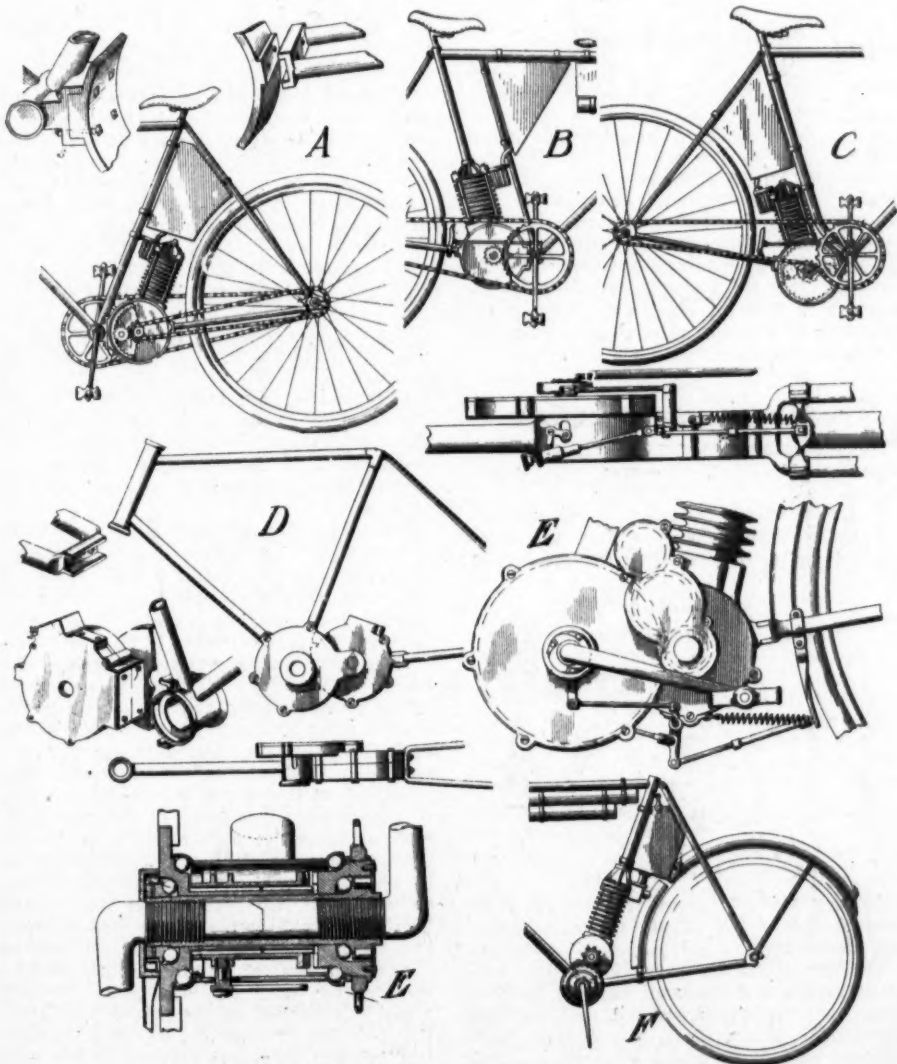
The rear wheel fork frame simply accomplishes the result of rigid mounting for both ends of the rear wheel axles, which are independent so that the wheels, if desired, may be propelled by separate chains from the transmission gearing. The front wheel forks, however, are so constructed that they afford steering control exactly the same as though the wheels were mounted on the usual form of steering knuckles. An under swing of the wheels toward the shorter radius of

INVENTIONS.

a curve made in turning the vehicle is attained, but by the same method that would be employed in securing the same result with ordinary steering knuckle construction—that of giving a perceptible rake to the substantially vertical axes of the knuckles.

The front truss of the running gear carries steering heads which are inclined forwardly toward their lower ends. The pivot of each steering head is furnished at top and bottom with outwardly projecting blades to which is attached the inner blade of the wheel fork. The fork is thus hinged on the steering head.

To the lower of the steering pivot arms is also attached a forwardly projecting arm which serves as the steering connection lever. This arm normally occupies an exactly longitudinal position and is thus parallel with its mate on the other side of the vehicle. On account, however, of its offset it is in reality an obliquely set arm to furnish that necessary steering effect of compelling the two steering wheels, in turning, to assume planes which converge at the center of the rear axle of the vehicle or at any other predetermined point assumed by the designer to be the swinging center of the vehicle.



SOME KEATING MOTOR BICYCLE SCHEMES.

INVENTIONS.

Practically, the forks are merely additional braces for a steering knuckle construction with inclined axes.

The rear wheel forks are sustained by a rectangular rear frame whose forward two central reaches of the main frame. The upper central and the two curved cross bar is attached to the under of the side reaches are attached directly to the rear axle truss. The side bars of the rear frame are on the outside of the rear wheels. Between the main frame and the front truss is a longitudinal, horizontal pivot to permit free oscillation of the front truss. The construction of this portion of the running gear is clearly presented in the illustration.



SEPARABLE FRAME

Letters patent No. 675,765, dated June 4, 1901; to James H. Barry, of London, England.

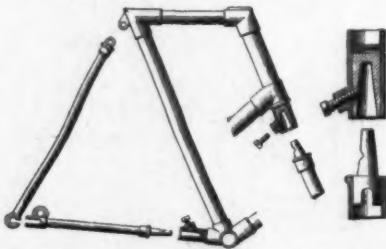
This invention comprises a frame which is separable by the removal of the rear frame and wheel and the front fork and wheel. The connection at each of the points of separation is by means of a taper socket joint whose taper tang has an oblique seat into which screws a locking set screw from the female member of the union. The thrust of the screw is assumed to be the means of tightly wedging the parts together.



STEWART'S STEERING LEVER

Letters patent No. 675,644, dated June 4, 1901; to Alfred C. Stewart, of Santa Paula, Cal.

The post of this steering handle is hollow and within it is journaled the lever shaft, it being connected at the lower end



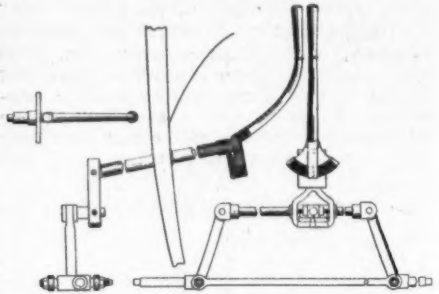
Barry's Separable Frame.

with any suitable form of steering gear, that shown in the illustration not forming, necessarily, a part of the invention.

The upper end of the lever shaft is furnished with a horizontal arm or projection, over which is pivoted the steering lever. The lever has a slight play upon its seat and is normally pressed upward by a coil spring. The extreme forward

end of the pivotal head of the lever is furnished with a downwardly facing gear tooth or lug which is adapted to engage any of the teeth of a segmental gear mounted rigidly upon the hollow post.

It is obvious that the engagement of the



Stewart's Steering Gear.

segmental gear with the tooth on the lever head causes the locking of the steering gear at any position at which the lever is left by the operator, and that to release the gear for movement the handle end of the lever must be first pressed downward slightly.



A STANLEY IMPROVEMENT

Letters patent No. 675,421, dated June 4, 1901; to Freelan O. Stanley, of Newton, Mass.

This is a simple device with a simple object—that of operating and controlling the water pump of a steam vehicle boiler in such a manner that flexible pipe connections between it and the supply tank are avoided.

The pump instead of being, as originally, attached to the engine frame is rigidly mounted on a bracket underneath the platform of the wagon body; while the engine is hinged to permit it to swing backward and forward, with a common distance rod to preserve the normal distance between its shaft and the rear axle.

The pump is operated by a rocker arm whose rear extremity is connected by a link to a lever pivoted at the forward end to a stud on the vehicle body. The rear end of this lever is connected to the reciprocating cross head of the engine by means of a wrist pin and link so that an oscillating movement will be transmitted to the lever without interference by the swinging of the engine on its frame. The manner in which the oscillation of the lever operates the pump is obvious.

The link which connects the pump rocker arm with the oscillating lever is slidably attached to the latter so that by the addition of a hand lever and connecting link the operative relation of the lever and rocker arm link may be varied to

INVENTIONS.

regulate the action of the pump from the seat of the vehicle.

In case it should be necessary to fill the boiler when the engine is inoperative, the oscillating lever may be used as a hand lever by simply disconnecting it from the engine cross head link. Provision is also made in the patent for mounting and operating in the same manner a gasoline pump. In either case the connections to the supply tanks may be rigid pipes inasmuch as both pumps and tanks are mounted on the vehicle body.

SPRING SEATED MOTOR

Letters patent No. 675,458, dated June 4, 1901; to Edward Y. White, of San Antonio, Tex.

This is the second patent granted to Mr. White for a spring frame motor bicycle. The machine specified by the previous patent had a frame upon which the motor and the seat were cushioned as a unit. The present invention comprises a rigid frame in which the motor is cushioned independently of the seat. The method of mounting it upon a coil spring within a vertical guideway is made plain in the accompanying illustration.

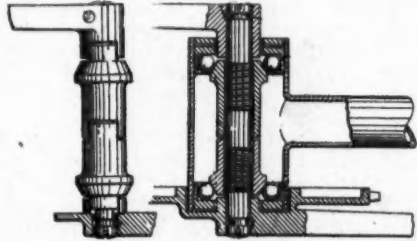
EUROPEAN CRANK HANGER

Letters patent No. 675,505, dated June 4, 1901; to Anton Bolzani, of Berlin, Germany.

Ease of adjustment of bearings is the object of the crank hanger comprising this invention. It has inverted ball cups

jections which by tenon end engagement are united slidably.

The outer faces of the cones are also furnished with tenons which engage the inner faces of the cranks for rigid rotary connection. The cranks are held on the axle ends by keys bearing in annular grooves, provided to prevent longitudinal movement or displacement only, there being no connection whereby the torsional strain of rotation is thrown upon the shaft, it being merely susceptible to bend-



Bolzani's Crank Hanger.

ing stresses. One or both ends of the axle are provided with screw driver slots so that the axle may be held against rotation while the cranks are turned, or vice versa. This operation causes the readjustment of the cones.

The most apparent shortcoming of the device is the insecurity of the engagement for rotation between the parts taking the torsional driving strain. It is probable that a very short wear would result in the loosening of the tenon engagements so that connection between the two cranks would not be positive.

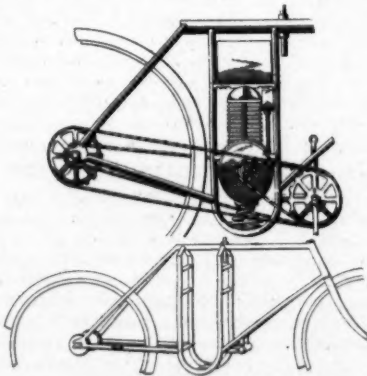
MENTIONED BRIEFLY

Letters patent No. 675,453, dated June 4, 1901; to George F. Sturgess, of Leicester, England. This is an extensible spring tow line whereby two bicycles may be connected. As a commercial novelty this would prove more acceptable as part of a motor cyclist's outfit. The last statement may be inferred to coincide with the reader's opinion of a motor bicycle.

Letters patent No. 675,502, dated June 4, 1901; to David L. Thomas, of Wheatland, Wyo. Disk to attach to front sprocket to protect the rider's trouser leg.

Letters patent No. 674,864, dated May 28, 1901; to Willard R. Green, of Denver, Col. Anti-vibratory cushion device for handle bars and seat posts.

Letters patent No. 675,358, dated May 28, 1901; to Arthur McCollum, of San Jose, Cal. Folding bicycle support.



White's Spring Frame Motor Bicycle.

which screw into the hanger ends and are locked by set screws. The cones are screwed onto the axle, their threads running in opposite directions so that rotation of the axle moves them toward or away from each other. They are connected for rotation in unison by sleeve pro-

MOTOR AGE CHICAGO-BUFFALO TOUR

THE route of the Motor Age automobile tour from Chicago to Buffalo has been arranged, subject to some minor changes.

The party will leave the Auditorium Hotel at 10 a. m., on Saturday, August 31, with the expectation of being on the road eight days and of crowding into that time enough fun to last several months.

The total distance will be about 560 miles, divided into stages averaging 70 miles a day. It is not intended that the tour shall be, in any sense, a test of speed, though there will be speed trials on the way, but rather a pleasant outing for ladies and gentlemen, for many of the tourists have already decided to take their wives. Some days the journey will be over 70 miles, because it is intended to go into such towns as Cleveland and Toledo early in the day, to allow time for sight-seeing, visits to some of the automobile factories and other entertainments.

Leaving Chicago, the route will lead through Pullman, Hobart, Chesterton and Otis to LaPorte, 64 miles; then on through Prairie, New Carlisle and Terre Coupee to South Bend, about 91 miles. Osceola, 103 miles, will be the next place of importance and then Elkhart, 109 miles, Goshen, 120, and Ligonier, 134, will follow. At the latter the party will be joined by the Indianapolis delegation, which, according to Carl Fisher, will be both large and enthusiastic.

Passing through Kendallville and Butler the party will pass out of Indiana and into Ohio, the first town of importance in the Buckeye state being Bryan, 189 miles. Napoleon comes next and then Grand Rapids, Perrysburg and Toledo. It will be the aim of the party to make the latter at about 2 p. m. on the fourth day of the trip. Here a smoker or a dinner will be arranged, together with such other entertainment as local people may be pleased to suggest. The party will be largely augmented at Toledo and from that point it is expected that not less than 30 machines will be in line.

The route will lead through Stoney Ridge to Elmore, Lindsey and Fremont, 294 miles; thence to Clyde, where arrangements will probably be made for the tourists to visit the works of the Elmore Mfg. Co. Then on through Bellevue, 319 miles; Norwalk, 322; Oberlin, 343, and Elyria, 352, to Cleveland, 377 miles. Here again the party will aim to arrive early in the day. There will be more factories to visit, a smoker, a theater party or such other amusement as may be suggested later.

Cleveland is expected to make a large addition to the size of the party. George Collister has undertaken the work of getting the party together and writes that he expects to secure a good many.

From this point the route will follow the Lake Shore road across the northern corner of Pennsylvania, passing through Painesville, 496 miles; Geneva, 420; Ashtabula, 429; Girard, 455; Erie, 470; North East, 485; Westfield, 501, and Silver Creek, 527.

The arrival at Buffalo will be timed for late Saturday afternoon and Buffalo automobilists will ride out and meet the party, so that the arrival at the exposition city will be an event of some considerable importance. The freedom of the rooms of the Buffalo Automobile Club have been tendered to the party during its stay in the city.

Whether an attempt will be made to hold the tourists together during their stay in Buffalo or whether each will follow his or her own inclinations has not yet been decided. Some of those who have already engaged to go are in favor of the former course.

Further details of the condition of the roads, hotel accommodations, expense, etc., will appear from time to time in this paper, which would appreciate information from automobilists along the route as to any of those things and points of interest to be visited. Meanwhile information concerning prospective participants in the tour will be gladly received by Motor Age.

NOTE—The second and final chapter of "The Construction of a Motor Quadricycle" by L. Elliott Brookes will appear in next week's issue.

IMPORTANT BATTERY DEVELOPMENT

AND now, on top of the remarkable claims made for the Edison battery, comes a statement relative to another produced by Chief Engineer Justus B. Entz, of the Electric Storage Battery Co., of Philadelphia, and with it remarks akin to those genteel expressions of incredulity to which members of the American Institute of Electrical Engineers gave vent on the occasion of Dr. A. E. Kennelly's lecture. The article referred to was forwarded by one of the officials of the Philadelphia company, but first appeared in the *Inquirer* of Thursday last.

Representing the highest type of electric storage battery construction, it says, a newly perfected form of the Exide battery, produced by the Electric Storage Battery Co., of this city, has been selected for service on the new automobile bus line on Fifth avenue, in New York. The Exide battery has been in practical use for three years as a motive power for automobiles, and its perfected type has been used in the construction of all the pleasure and business wagons recently put on the market by the Pennsylvania Electric Vehicle Co., of this city. Its selection by the New York corporation is regarded by technical experts as a great triumph for Philadelphia engineering.

Telegraph dispatches from New York yesterday gave the first intimation that Philadelphia brains were to furnish the major portion of the equipment for the New York auto-bus line—the first to be run in this country. The New York Electric Vehicle Transportation Co., which will operate the projected line, has been running an electric cab service in that city for several years. The battery had been in successful use upon its auto cabs since the service was put in operation, and the experts of the company decided that its latest perfected design would be the most efficient for use upon the new stage line.

The men who have perfected this latest triumph in storage battery construction are Justus B. Entz, chief engineer of the Electric Storage Battery Co. and his assistants.

When seen at the office of the Electric Storage Battery Co. yesterday afternoon Mr. Entz described the battery which has won the approbation of the New York company.

"The Exide battery has been evolved from the old style lead plate accumulator," he said. "It has been perfected particularly for use in automobile construction. In three years' use on every type

of automobile, from the light and speedy pleasure vehicle to the strongest and heaviest dray or delivery wagon, it has proven its perfect adaptability. The Pennsylvania Electric Vehicle Co., of this city, has adopted it to equip all the automobiles turned out of its shops.

"While the battery made for general use on automobiles weighs only 62 pounds per horsepower, no effort has been made to secure lightness at the expense of strength or durability. When first put into practical use in automobile construction, three years ago, the battery was designed to weigh 50 pounds per horsepower. This battery possessed good wearing qualities and gave the vehicle fine speed, but in developing both these requisites the perfected battery was increased in weight to 62 pounds per horsepower. A number of the 62-pound batteries have been in use in the auto cab livery service in New York city for the past year. A more severe test could scarcely be applied to them. Over 2,500 miles have been covered by some of the cabs and their batteries are still in good condition."

In a paper, describing Edison's new storage battery, recently read before the American Institute of Electrical Engineers, in New York city, Dr. A. E. Kennelly compared the Edison battery to the lead battery. In enumerating the advantages of the Edison battery Dr. Kennelly mentioned that it weighed 53.3 pounds per horsepower, whereas the lead battery tipped the scales at from 124 to 186 pounds per horsepower. Mr. Entz was questioned regarding this comparison yesterday.

"Lead batteries of the weight given by Dr. Kennelly are not used for automobile propulsion," he said. "The weight of 186 pounds per horsepower is that of heavy central station batteries. The heaviest battery we have ever used for automobiles did weigh 124 pounds per horsepower. The Exide battery, which weighs just one-half of this, has evidently been overlooked in the comparison, the general data concerning which has not been made public up to this time. This is but little more than the weight claimed by Mr. Edison, which weight, by the way, was estimated from that of a very small experimental cell. The data given by Dr. Kennelly in his paper before the Institute of Electrical Engineers was not that of an actual cell, but was estimated from a very much smaller experimental cell. The type of battery invented by Mr. Edison

MOTORER AND MOTORESS

is new only in detail. Batteries of the Edison class cover the use of quite a wide variety of metals in an alkaline solution. They all possess, however, similar electrical characteristics. Experiments have been conducted with them on a very extensive scale, both in this country and in Europe, for the last twelve years, but in every case they have been given up. The latest battery of this class, before that of Edison, was a very similar one recently invented in Sweden. Tests have been made in our laboratory on a number of these cells, and they were found to pos-

sess the same characteristic difficulties as others of this class. In any case, it should be borne in mind that lighter and more efficient batteries have been produced in the Exide type than is claimed by Mr. Edison for his new invention. The patents owned by the Electric Storage Battery Co. date from the earliest state of the art, and the fundamental patents are not restricted to the use of batteries with lead plates, but cover the use of any material in a shape to become electrically active in combination with any method of mechanical support for such materials."

MOTORER AND MOTORESS

Reading, Pa., June 6.—To the Editor: The question of the proper word for any particular service is one which cannot be settled at will, as words usually grow instead of being manufactured. The object of language being to convey thought, words should be chosen that will indicate to the public what the user of the word intended to be conveyed.

In 1895 the Chicago Times-Herald held a word coining contest to find a name for the motor vehicle then being brought to the attention of the American public for the first time. Hundreds of words were suggested and motor-cycle was adopted in and around Chicago. This word became quite prevalent as applied to any vehicle driven by mechanical power. In spite of this use, due to the wide circulation of the Times-Herald, the word did not last, for it did not convey the proper meaning. The ordinary motor vehicle is not a motor cycle and the motor-cycle can and does mean nothing but a cycle driven by a motor.

This same fact will indicate the proper word for the motor operator and we believe it does. We speak of our vehicle as a motor phaeton or a motor surrey or a motor trap, as the case may be, and see no reason why a distinctive name should

be coined which means nothing to the public at large. Such a word was coined in connection with a steam vehicle and by large advertising, given much prominence. Almost immediately they found themselves needing another word to express another style of vehicle and loco-surrey came into existence, while locomobile in many localities means simply a steam runabout. The writer has been asked frequently, "Are your vehicles automobiles or locomobiles?" the intent being to distinguish between gasoline and steam by this use of the two words. The fault lies in the words, in that they do not convey to the average man the proper meaning.

We believe motorman the proper word for a motor vehicle operator whose sole business is to operate said vehicle; and submit, that this word has this meaning when applied to electric and steam car operators, so that there is no question about the public properly understanding it.

We would suggest motorer and motress for the masculine and feminine forms, indicating users of the motor vehicle and think these as short, handy and of as good origin as can be found. Yours, etc., Duryea Power Co., by C. E. Duryea.



WINTON'S EXPERIENCE IN DESERT SANDS

CHARLES B. SHANKS, companion of Alexander Winton in the late attempt to drive an automobile from San Francisco to New York, has written the following highly interesting account of their experience for the Cleveland Plain Dealer:

Covering the North American continent from the Pacific coast to the Atlantic ocean in an automobile has been attempted by Alexander Winton, president of the Winton Motor Carriage Co. of this city. That the expedition failed is no fault of the machine Mr. Winton used, nor was it due to absence of grit or determination on the part of the operator. Neither was the failure due to roads. The absence of roads was the direct and only cause.

Having been with Mr. Winton on this trip, I saw and experienced things the like of which automobile drivers in every civilized portion of the North American continent know not of nor can an active imagination be brought to picture the terrible abuse the machine was subjected to, or the hardships its riders endured in forcing and fighting the way from San Francisco to that point in Nevada where the project was abandoned—where Mr. Winton had forced upon him the positive conviction that to put an automobile across the sand hills of the Nevada desert was an utter impossibility under existing conditions.

Rock roads and deep snow in the high Sierras were encountered and mastered, streams were forded and washouts passed, adobe mud into which the machine sank deep and became tightly imbedded failed to change the plucky operator's mind about crowding the motor eastward toward its hoped for goal.

It was the soft, shifting, bottomless, rolling sand—not so bad to look upon from car windows, but terrible when actually encountered—that caused the abandonment of the enterprise and resulted in the announcement by wire to eastern newspaper connections that the trip was "off."

To those who are interested in knowing what was met and mastered during the days we were out from San Francisco; to those who wish to learn some facts about automobilism in a section of this country where all kinds of climate and every condition of road may be encountered in a single day, the experiences of the short trip will satisfy.

Our expedition left the government building in San Francisco and started across the bay for Oakland at 7:15 a. m.,

Monday, May 20. Left ferry foot of Broadway and got on road at 8 a. m. Turned off Broadway on San Pablo avenue, heading for Port Costa, distance thirty-two miles, hoping to reach there in time to catch the Sacramento river ferry to cross with Southern Pacific express No. 4, which left Oakland at 8:01 with schedule to reach Port Costa at 9:15 a. m.

Instead of running the thirty-two miles we clipped off forty-four between Oakland and Port Costa as a consequence of mistaking road to San Pablo and going around by way of Martinez instead of the more direct road. Reached Port Costa too late for the No. 4 trip and had to wait until 11:17 a. m., when the transcontinental express (the Overland Limited) was ferried over.

All morning the sky, which for three weeks previous had been clear and bright, was heavy with clouds. Before the opposite bank of the Sacramento was touched the clouds opened. And what an opening it was. Adobe roads when dry and hard hold out opportunities for good going, but when the spongelike soil is soaked with moisture, when your wheels cut in, spin around, slip and slide from the course and suddenly your machine is off the road and into the swamp ditch—buried to the axles in the soft "doby"—then the fun begins.

Pull out block and tackle, wade around in the mud, get soaked to the skin and chilled from the effects of the deluge, make fastenings to the fence or telephone post and pull. Pull hard, dig your heels into the mud and exert every effort at command. The machine moves, your feet slip and down in the mud you go full length. Repeat the dose and continue the operation until the machine is free from the ditch and again upon the road.

Tie ropes around the tires to prevent slipping. It may help some, but the measure is not entirely effective, for down in the bog you find yourself soon again and once more the block and tackle is brought into play. Slow work—not discouraging in the least, but a bit disagreeable, considering that it is the first day out and you are anxious to make a clever initial run.

After twelve hours' severe experience and the rain still pouring down, halt is made abreast of a lane leading to a ranchman's home. The ranchman is A. W. Butler. He comes down to the road and replying to interrogations tells you that to Rio Vista, nine miles ahead, the

WINTON'S EXPERIENCE IN DESERT SANDS

road is particularly bad because of plowing and grading. Arrangements are made for our staying all night with him. The machine is run in his barn, we eat supper with intense relish, go to bed and get up early to find more rain, but a breaking up of the clouds with prospect of sunshine later.

Got upon the road 7:40 a. m. Got to Rio Vista and two miles further on to "Old River" ferry at 8:40. Go east on the levee road, which is of adobe formation with steep descending banks on both sides. On the left side is the river, the opposite bank runs down to a thicket, beyond which are orchards. Slide off the treacherous road on either side and nothing short of a derrick and wrecking crew could serve to a practical and satisfactory end.

A few miles from the ferry a tree had fallen across the road. Mr. Winton used the ax to splendid advantage and after some delay the road was cleared and we were going ahead once more. Reached Sacramento 1:15 p. m., but delayed in California's capital city just long enough to take on five gallons of gasoline. On we went toward the Sierras, passing through Roseville, Rocklin, Loomis, Penry, New Castle, Auburn, Colfax, Cape Horn Mills and when darkness was fast approaching halt was made in the little gold mining town of Gold Run.

From Auburn the climb commenced, and when Colfax was reached and passed Mr. Winton was busy with his skillful knowledge in crowding the machine up steep mountain grades, along dangerous shelf roads from which one may look deep into canons and listen to the distant roaring of rushing waters below.

Ordinarily there would be great danger in speed under such conditions—and there may have been risk to life and limb at the time, but I knew Mr. Winton, I knew him for his skill and that there was no call for nervousness with him at the wheel, so I sat back and enjoyed the scenery.

Reached Gold Run at 7:40 p. m., just in time to escape darkness and avoid going into camp on the mountain side. On such roads, or, rather, surrounded as we were by canons, operation in the dark could not be regarded as safe. Our run that day was 123 miles.

Next morning, May 22, at 6:45 o'clock, the ascent was recommenced. Up and up we went, winding around and turning in many directions, but always up. From Gold Run we passed along through Dutch Flat, Towle, Blue Canon, Emigrant Gap, Cisco and on to Cascade. Roads became particularly rugged after leaving Gold Run and when we reached Emigrant Gap the few inhabitants who make that their home told us fully what rock roads and

snow deposits would have to be encountered between their station and across the summit down to Donner lake.

It was the universal opinion that if the machine could stand the punishment sure to be inflicted between the Gap and Donner lake it would not be troubled at any point east of the Sierras, between Truckee and New York city. Leaving Emigrant Gap the game commenced in earnest. Unbridged streams were encountered and the machine took to the water like a duck in high spirits. Splash she would go in, and drenched she would come out. The water would many times come up as high as the motor and up would go our feet to prevent them getting wet.

When the "New Hampshire" rocks were met trouble seemed to be ahead. I asked Mr. Winton if he would put the machine to what appeared to me the supreme and awful test. "Of course I will," was the short and meaning answer, and on went the machine. One big bump and I shot into the air like a rocket. I was not thrown from the machine, however, and thereafter busied myself hanging on with hands and bracing with feet. At every turn and twist in the road the rocks grew larger, and I wondered if anything mechanical could stand the terrible punishment.

The motor never flinched, its power never lagged, it pulled us through those rocks and up the stiff grades. Emigrants westward bound in the early days would never trust horses or mules to convey their wagons safely to the bottom of one particularly stiff and rugged grade which Mr. Winton caused the motor to ascend. Those early day pathfinders would tie a rope to the rear axle of the wagon, take a turn around a tree and lower it gently.

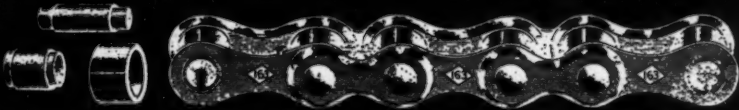
We at last got through the "New Hampshire rocks" and began calculating what would be our fate in the snow immediately to be encountered. The Cascade creek, swollen by the melting mountain snows to the proportion of a river, caused a halt about one-half mile west from the commencement of what was expected to be bothersome snow.

The water in the stream was clear and sparkling, the current swift, and the bottom filled with huge rocks. Mr. Winton pulled in the lever, the machine forged ahead. Splash and bump, bump and splash. Front wheels struck something big and hard, they went up in the air and when coming down, almost at the east bank, the right front wheel with a wet tire struck a wet, slanting rock. The wheel was hard put, something must give way—and it did. The front axle on the right side sustained a fracture, and after a lurch ahead the machine came to a sudden standstill.

Mr. Winton sent me to hunt a tele-

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WINTON'S EXPERIENCE IN DESERT SANDS

graph station. Walked east on the road for about a mile until I could look up the mountain side and see the railroad snow sheds with some sort of a station. I climbed up through the snow, over fallen trees, broke passage through tangled bushes and finally came upon a surprised operator, who asked what the trouble was. It was a little telegraph station for railroad service only, but the dispatcher took my messages and repeated them to the Gap, from which point they were sent, one to the Winton factory at Cleveland, asking for duplicate of part broken, and another to L. S. Keeley, of Emigrant Gap to come up for us and our effects and take us back to the Gap, where we would wait for the repair parts. The machine was left alone in the mountain wilderness.

Arrived back at the Gap and Mr. Winton developed uneasiness because of the enforced delay in the trip. Next morning he announced his intention of making a temporary repair and working ahead slowly through the snow.

★

On the following morning (May 24) at 7 o'clock the repair had been completed. When darkness enveloped us that evening the machine had covered seventeen miles. And such a day of battle. When it was over we had reached and passed the summit of the high Sierras, the machine was hard and fast in a snow bank at the bottom of "Tunnel No. 6 hill," a treacherous descent, along which there was great peril every moment.

We walked back to Summit station and stayed at the hotel that night. Next morning, aided by some kindly disposed railroad men who could handle shovels most effectively, the machine was dislodged.

Since that day in the snow banks I have called it to Mr. Winton's mind. He says that the tough experiences of that day, the abuse and hardship to which the machine was subjected, stays in his mind like the remembrance of a nightmare. During that entire day, working up there among the clouds, we were cold and drenched. When it did not rain it snowed or hailed.

On the 25th, after getting free from the snow bank and passing through a number of smaller deposits, we got to Truckee, where we took on fuel and went on to Hobart Mills, a delightful lumber town, where Mr. Winton decided we would stay during the following day, Sunday, and dry our clothes. Reached Hobart Mills in a terrific downpour.

The officials of the Sierra Nevada Wood & Lumber Co. (the "company" owns the town and all there is in it) were particularly generous in bestowing upon us many courtesies and making the time we spent with them in Hobart Mills that of delightful remembrance.

Monday, May 27, started 6 a. m. from Hobart Mills, and that afternoon, toward evening, reached Wadsworth, Nev., the western gate to one of the worst patches of desert sand in that section. That day was another of rain. The early morning hours were bright, but when Reno, Nev., was left behind the skies changed from blue to white, then to a dark color and the clouds that had so quickly formed opened and spilled their contents about and upon us.

Reached Wadsworth splashed and covered with mud, wet through and hungry. Spent night at Wadsworth. Residents warned Mr. Winton about sand, more especially the "sand hill" just east of the town. Next morning we took on stock of rations and drinking water. That "sand hill," or rather the remembrance of it and the balance of our trip to Desert Station that day, is like unto another nightmare.

All during the afternoon it rained and the wind blew a gale, but the temperature was high and we did not mind. Had it not been for the rain and its cooling effect there on the sand and sage brush desert I doubt whether we could have stood it.

The storm that day caused us to speculate largely as to whether some of the many bolts of lightning hitting close around us would not strike the machine, demolish it completely and incidentally put its operator and passenger "out of business."

But a kind providence was with us during that storm and the lightning kept off. Getting up that Wadsworth sand hill we cut sage brush and kept piling it up in front of all four wheels to give them something to hold to and prevent slipping and burrowing in the soft sand until the machine was buried to the axles and it became necessary to use block, tackle and shovels to pull up to the surface. Got to the top at last, but found no improvement in sand conditions. It was the hardest kind of work to make the slightest progress, but at 5:45 in the evening halted at Desert Station, a place inhabited by D. H. Gates, section boss, his wife, Train Dispatcher Howard (his office, cook house, etc., were all combined in a box car which had been set out on a short siding), and a dozen Japanese section hands.

★

Passed the night comfortably and when the road was taken next morning (May 29) at 6 o'clock the sun was shining and Mr. Gates predicted no rain for the day.

We found the roads somewhat improved and on and on we went through that vast country of magnificent distances. We were in the country where rattlesnakes were thickest, near Pyramid rock, of which one writer says: "This rocky pyra-

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WINTON'S EXPERIENCE IN DESERT SANDS

mid is alleged to be the home of rattle-snakes so numerous as to defy extermination."

When out of the machine and walking around bushes of sage brush care was exercised in keeping out of striking range of these venomous reptiles. Mr. Winton has some tall end rattles as trophies, but I was not so anxious to get close enough to kill the snakes and cut off their tails.

That day we plunged through four unbridged streams and in one place where a bad washout had occurred it became necessary for us to build a bridge before the machine would "take the ditch." We lugged railroad ties—many ties from a pile close to the railroad tracks some distance away. And they were heavier than a five-pound box of chocolates, but we finally got enough and bumped the machine through and on its way.



Mill City was reached shortly before 5 o'clock. The Southern Pacific agent there said we could never get to Winnemucca (thirty miles to the east) that night because of the sand hills, the quicksand would bury us he said. Another man who came up discussed the sand proposition with Mr. Winton and told him that there would be only one way in which "that there thing" could get through that thirty miles stretch of quicksand. "How?" asked Mr. Winton. "Load her on a flat car and be pulled to Winnemucca."

"Not on your life," retorted the plucky automobilist; into the carriage I jumped, he pulled the lever and off we went. The course led up a hill, but there was enough bottom to the sand to give the wheels a purchase and from the hill summit we forged down into the valley where the country was comparatively level as far as the eye could reach. Nothing in sight but sage brush, sand, sand and sage brush.

Two miles of it were covered. Progress was slow, the sand became deeper and deeper as we progressed. At last the carriage stopped, the driving wheels sped on and cut deep into the bottomless sand. We used block and tackle, got the ma-

chine from its hole and tried again. Same result. Tied more ropes around wheels with the hope that the corrugation would give the wheels sufficient purchase in the sand. Result: Wheels cut deeper in less time than before.

It was a condition never encountered by an automobilist in the history of the industry. We were in soft, shifting quicksand where power counted as nothing. We were face to face with a condition the like of which cannot be imagined—one must be in, fight with it, be conquered by it, before a full and complete realization of what it actually is will dawn upon the mind.

Mr. Winton said to me: "Do you know what we are up against here? I told the Plain Dealer I would put this enterprise through if it were possible. Right here we are met by the impossible. Under present conditions no automobile can go through this quicksand." I suggested loading the machine and sending it by freight to Winnemucca. No, sir," he flashed back emphatically. "If we can't do it on our own power, this expedition ends right here, and I go back with a knowledge of conditions and an experience such as no automobile manufacturer in the world has gained."

When, after serious deliberation, he decided to abandon the trip he said: "If I attempt this game again I will construct a machine on peculiar lines. No man who expects to operate in the civilized portions of this continent would take the machine for his individual service about cities and throughout ordinary country, but I tell you it will go through sand—and this quicksand, at that."



There is nothing more to tell. We left Mill City that night and rode into Winnemucca on a freight train. The machine had been hauled from its bed by horses, aided by its own power, and returned to Mill City, where arrangements were made to load for Cleveland.

We left Winnemucca May 30, at 2:40 p. m. on a passenger train, and arrived in Cleveland June 2 at 7:35 p. m.



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FROM THE FOUR WINDS

OVER THE PLAINS OF TEXAS

Houston, Texas, June 3.—A three or four days' journey in a motor vehicle over the roads of New England, or from New York to the great lakes and on to the opulent city of the west, across the states of Ohio and Indiana, to the southern boundary of Lake Michigan, is indeed quite an undertaking even in these days of "big things done in a hurry." But in a journey of this kind there are some things in favor of the travelers. Supplies can be had at frequent intervals, and towns are not a day's journey apart. The roads are there, even if they do need a lot of apology and there are always natives enough to give information about a road.

These conditions do not exist in all states, and the great state of Texas is to-day sadly behind the times. There are at this writing just two automobiles in this state of 250,000 square miles. One has a home in San Antonio and one in Houston. It is about the Houston one that this article is written.

This machine has been in active operation all this spring in and around the city. It has taken parties over the graded shell roads, running perhaps 20 or 25 miles out into the country, and on the asphalt streets of the city it has been seen daily. It is owned and operated by Mrs. L. M. Adams, who represents the Mobile Co. of America for the entire state of Texas, and who enjoys the distinction of being the only lady representative of motor vehicles in this country.

Being desirous of proving what the machine could do, over other than civilized roads, a trip across the prairie, and over roads that seldom see a wagon, was undertaken. The total distance was to be 11½ miles, and the destination was set as Galveston, or as near to it as could be gotten, since the storm of 1900 swept away the two-mile bridge.

The start was made from the Rice Hotel, and as the trip had been well commented on in the local papers, all eyes were directed toward the Mobile, as it sped down Main street on the first run ever undertaken across the wild prairie land of Texas. There were many who smiled and said, "They will never put that machine over that country." But they were people who had not been outside of the country where they were born, and were just a little old fashioned.

Not being familiar with the various

buffalo paths it was necessary for Mrs. Adams to have a pilot, and she chose one who knew every wallow and spring between Houston and Galveston, and who was also familiar with the French machines, having used them in Paris—Dawes E. Sturgis. Twelve hours had been allowed for the entire distance—and the results proved that confidence had not been misplaced.

Seven miles out the county road was left and the genuine prairie was under the wheels. An even pace of 12 miles an hour was easily held, although it was often necessary to slow up and run around a clump or mound of dirt. The first stop was made at the end of 23 miles, and then

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only for a general and hasty look at the machinery, to see if it was running smoothly. Midway on the journey the trail led through the largest ranch in this section, the property of a well known cattle king. Here a bunch of long-horned steers, about 3,000 in all, were scattered for several miles and could only be made to move by continual ringing of the gong and the cow boys' assistance. It took 45 minutes to get past one herd, and then 10 minutes to explain to the cattlemen that the machine was not run by an iron spring.

There was only one grade to climb and that was over a trestle across Clear Creek, separating Harris from Galveston county. But that grade was made for horseback riding and not for steam, and must have been 40 per cent, yet the machine took it and wanted more.

As the Gulf of Mexico was approached, the signs of the storm of 1900 were much in evidence. A large flat boat was passed, resting forever where the waters had left it. Parts of pianos, boxes and barrels, all refuse from Galveston, had to be steered clear of, and special lookout kept for barbed wire, which was common, and dangerous even to the heavy tires.

Virginia Point was made at 1:35 p. m. and a thorough oiling was given the engine. Everything was as cool as a cucumber. Galveston was just across the bay, but impossible to get to. While we were entering this last storm-tossed place, an old negro mammy with three bare-footed, bare-headed children, all holding on to her dress, went down on her knees and prayed, as she was sure her time had come, when "carts" went so quickly and without "mules." It was by far the funniest sight of the day.

The return trip was made almost over the same roads, near the historic battle ground of San Jacinto, where 2,500 Mexicans surrendered to 500 Texans, and where Texas was born. But this was back in 1835, at a time when a Mobile was as little thought of as a practical possibility as an air ship is today.

Fifty-five miles of return trip was made in 5 hours and 20 minutes, which, when the existing conditions are reckoned on, is wonderful time. Many a cowboy and native Texan saw the most wonderful sight of his life that day.

The total comes to this in bare figures: 114 miles over country hard to beat in roughness and long grass, in 12 hours and 13 minutes, counting all stops, in a 4-horsepower Mobile driven by one of the gentler sex, without an accident or break-down.

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A curious contention was made in the Paris courts this week on behalf of a cavalryman hurt by M. Girardot's automobile during the Paris-Rouen ride. Not only was M. Girardot prosecuted, but suit was brought against Comte Boson de Tallyrand-Perigord, who offered the prize cup, and MM. Charron and Voigt, who constructed the automobile. They were held by the plaintiff to have contributed to the accident. The court did not adopt the cavalryman's view, but exonerated the Comte de Tallyrand-Perigord and MM. Charron and Voigt.

The Lincoln Park, Chicago, commissioners have been asked to co-operate with the city council in regulating the speed of automobiles. The council committee suggested that owners be required to carry numbers of sufficient size to be seen by the police.

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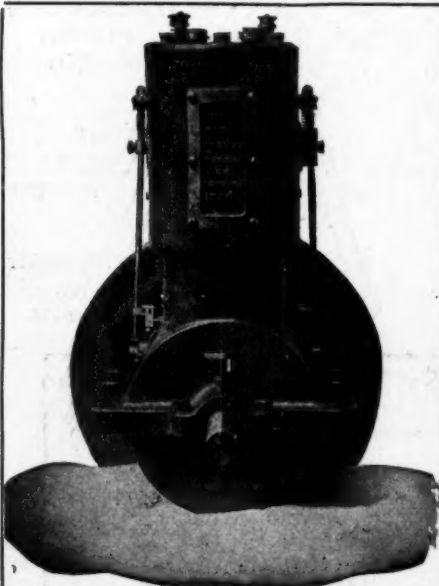
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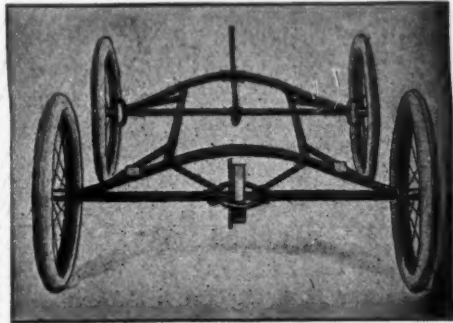
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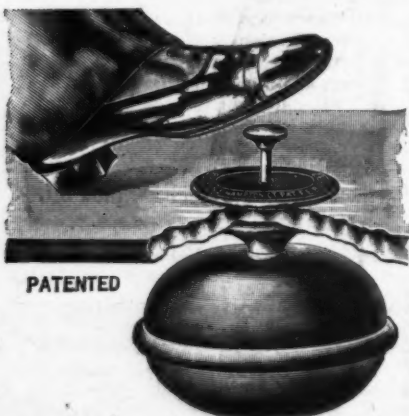
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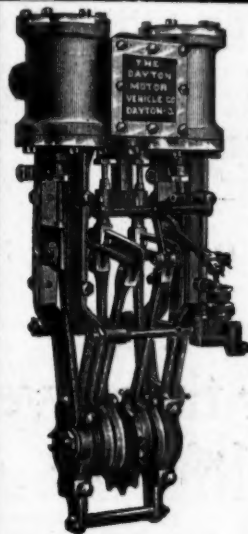
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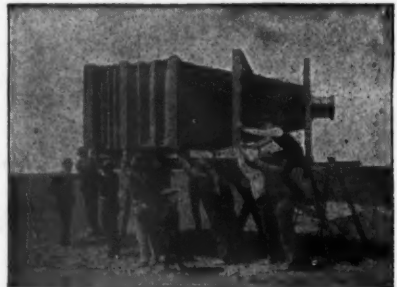
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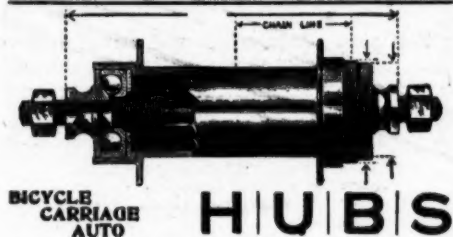
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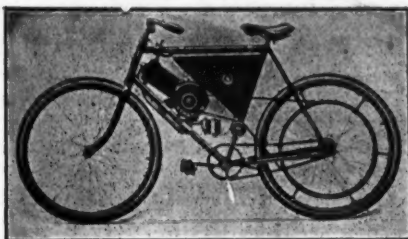
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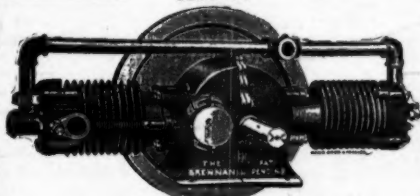
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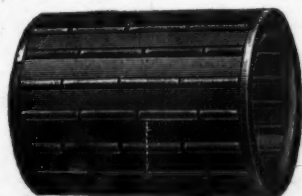


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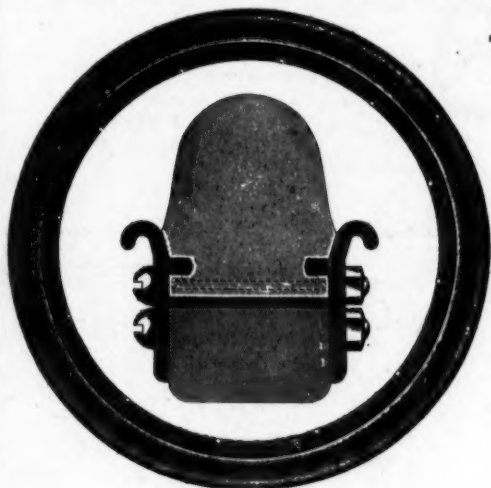
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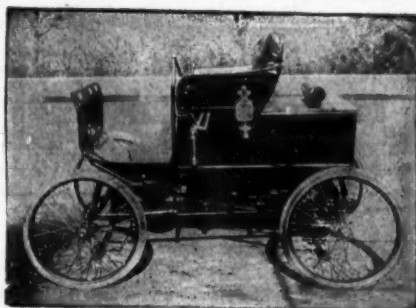
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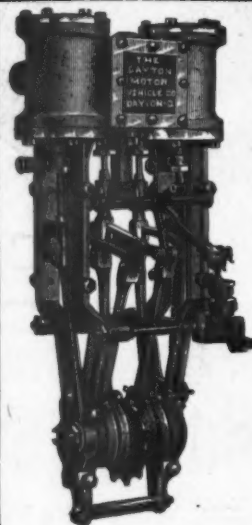
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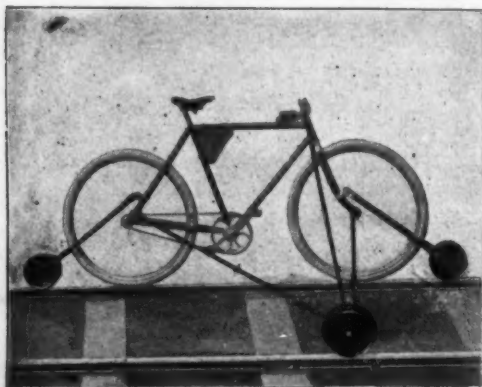
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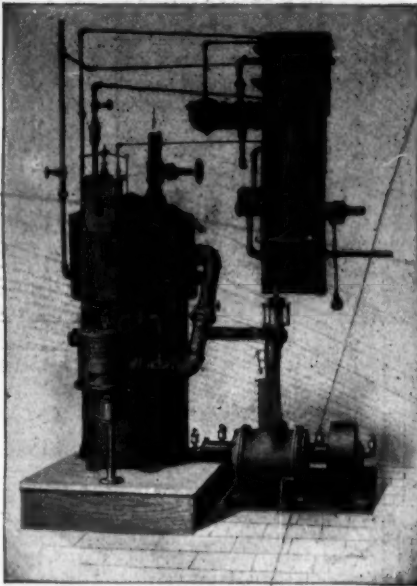


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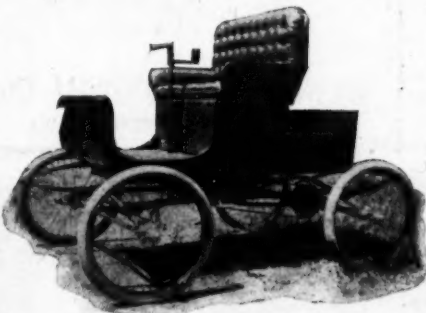
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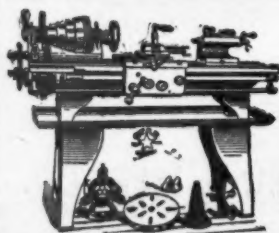
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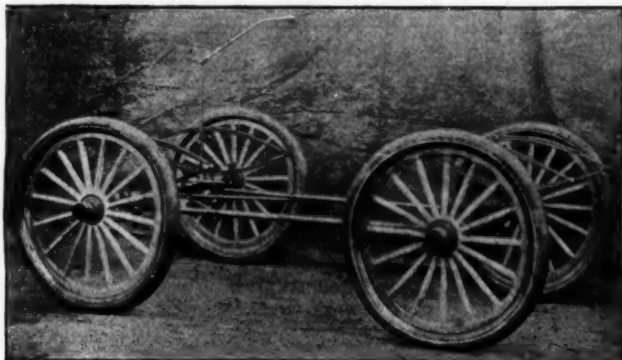
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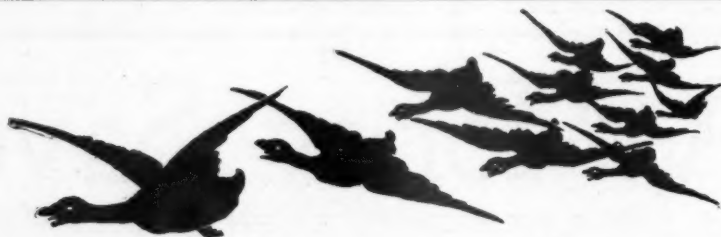
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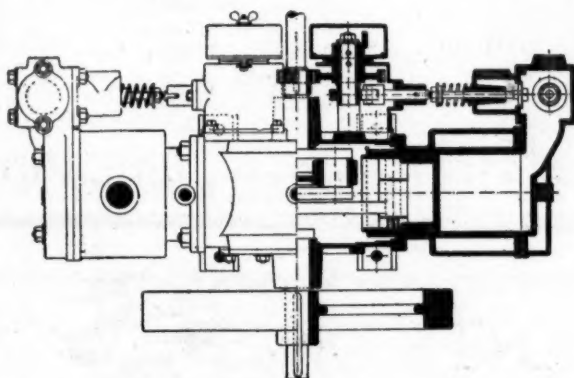
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